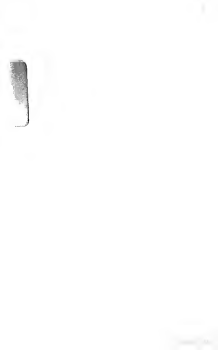
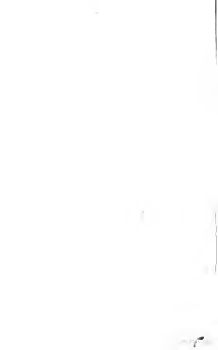


Proceedings

Royal Musical
Association,
International ...



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IN CONNECTION WITH THE INTERNATIONALE
MUSIKGESELLSCHAFT.

PROCEEDINGS
OF THE
MUSICAL ASSOCIATION

FOR THE INVESTIGATION AND
DISCUSSION OF SUBJECTS CONNECTED WITH THE
ART AND SCIENCE OF MUSIC.

FOUNDED MAY 29, 1874.

TWENTY-EIGHTH SESSION, 1901-1902.

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RULES AND REGULATIONS

Passed at Seven Special General Meetings, held on February 7 and April 3, 1876, on January 6, 1879, on December 6, 1886, on June 2, 1890, on January 7, 1895, and on October 15, 1901.

OBJECTS AND CONSTITUTION.

1. This Association is called the "Musical Association" and is formed for the investigation and discussion of subjects connected with the Art, Science, and History of Music; and is intended to be similar in its organization to existing Learned Societies.

It is not intended that the Association shall give concerts, or undertake any publications other than those of their own Proceedings, or the Papers read at their Meetings.

MEMBERS.

2. The Association shall consist of practical and theoretical musicians, as well as those whose researches have been directed to the science of acoustics, the history of the art, or other kindred subjects.

Any person desirous of being admitted into the Association must be proposed by two members. Foreigners resident abroad and distinguished in the Art, Science, or Literature of Music may be nominated by the Council for election as Honorary Members of the Association.

Elections will take place by ballot of the members present at any of the ordinary meetings, and one adverse vote in four shall exclude.

No newly elected member shall be entitled to attend the meetings until the annual subscription be paid.

SUBSCRIPTION.

3. The annual subscription to the Association is one guinea, which shall become due on the 1st of November in each year.

Any member may, upon or at any time after election, become a life member of the Association by payment of a composition of £1000. in lieu of future annual subscriptions, but in addition to any annual subscription previously paid or due from such member. Such sums shall from time to time be invested in legal security in the names of Trustees, to be appointed by the Council.

The same Trustees shall have power to hold other Capital accumulated by, or accruing to the Association.

Any member intending to resign his membership shall signify his wish by notice in writing to the Secretary on or before the 31st of October, otherwise he shall be liable for his subscription for the ensuing year.

MEETINGS.

4. An ordinary meeting shall be held on the second Tuesday in every month, from November to June inclusive, at 5 P.M., when, after the despatch of ordinary business, Papers will be read and discussed, the reading to commence not before 5.00 P.M.

5. An annual general meeting of members only shall be held at the end of the financial year, to receive and deliberate on ~~the~~ Report of the Council, and to elect the Council and officers for the ensuing year.

6. Special general meetings may be summoned whenever the Council may consider it necessary; and they shall be at all times bound to do so on receiving a requisition in writing from five members, specifying the nature of the business to be transacted. At least one week's notice of such special meeting shall be given by circular to every member, and ten members present at any general meeting shall constitute a quorum.

7. Every member shall have the privilege of introducing one visitor at the ordinary meetings, on writing the name in a book provided for that purpose, or sending a written order.

COMMUNICATIONS.

8. Papers proposed to be read at the meetings may treat of any subject connected with the Art, Science, or History of Music, Acoustics, and other kindred subjects.

Papers will be received from or through any member of the Association.

Experiments and performances may be introduced, when limited to the illustration of the Paper read.

9. All communications read will become thenceforth the property of the Association (unless there shall have been some previous arrangements to the contrary), and the Council may publish the same in any way and at any time they may think proper.

REPORTS.

10. A Report of the Proceedings of the Association, including the Papers read or abstracts of the same, and abstracts of the Discussions, shall be printed and distributed to the members as soon as possible after the end of each session.

This Report will be arranged and edited by the Secretary, under the direction of the Council.

COUNCIL AND OFFICERS.

11. The management of the affairs of the Association shall be vested in a Council, consisting of a President, Vice-Presidents, and ten ordinary members of the Association, with the assistance of the following Honorary Officers, viz., a Treasurer, Auditors, and Solicitor.

The election to the above offices shall be by ballot at the annual general meeting of members.

The President, Vice-Presidents, Honorary Officers, and five ordinary members of the Council shall retire every year, but shall be eligible for re-election.

There shall be a Secretary to the Association, and the Council shall have power to create such other offices as may appear necessary for conducting routine business. They shall have power to assign emoluments to the offices specified in this clause, and to make appointments to the same,

provided that all steps taken under the several heads of this clause be reported for information of members at the next ensuing monthly meeting, as well as in the annual report.

12. At the annual general meeting, the Council shall present a balloting list, showing the names of the persons whom they propose for the offices of President, Vice-Presidents, Honorary Officers, and ordinary members of Council for the ensuing year. A copy of this list shall be given to each member present.

In voting, each member may erase any name or names from the balloting list, and may substitute the name or names of any other person or persons whom he considers eligible for each respective office; but the number of names on the list, after such erasure or substitution, must not exceed the number to be elected to the respective offices as above enumerated. Those lists which do not accord with these directions shall be rejected.

The Chairman of the meeting shall cause the balloting papers to be collected, and after they have been examined by himself and two scrutineers, to be appointed by the members, he shall report to the meeting the result of such examination, and shall then destroy the balloting papers. Auditors shall be appointed at the annual general meeting by the members, and the statement of accounts shall be sent by the Treasurer to the Auditors, and be submitted by them to the Secretary in time to enable the Council to judge of the prospects of the Association, and to prepare their report in accordance therewith.

13. The Council and officers shall meet as often as the business of the Association may require, and at every meeting three members of Council shall constitute a quorum.

ENACTMENT OR ALTERATION OF RULES AND REGULATIONS.

14. No rules and regulations can be enacted, altered, or rescinded, except at a special meeting of members summoned for the express purpose, the summons stating distinctly and fully the matter to be brought under consideration.

THE MUSICAL ASSOCIATION.

IN CONNECTION WITH THE INTERNATIONALE MUSIKWERKSCHAFT
FOR THE INVESTIGATION AND DISCUSSION OF SUBJECTS
CONNECTED WITH THE ART AND SCIENCE OF MUSIC.

FOUNDED MAY 25, 1874.

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THE MUSICAL ASSOCIATION.

TWENTY-SEVENTH SESSION, 1901-1902.

REPORT.

THE ANNUAL GENERAL MEETING WAS HELD ON TUESDAY,
10TH NOVEMBER, 1901, AT THE ROYAL COLLEGE OF
OCCUPATION:

Dr. W. H. CARMICHAEL is the Chair.

The following Report of the Council was read by the Secretary:—

THE COUNCIL beg leave to present their Report of the 27th Session.

Papers have been read by Sir John Stainer, Dr. Swayne, Mr. Algernon Ross, Mr. W. W. Cobbett, Dr. Joseph C. Briggs, Sir Frederick Bridge, Mr. H. Heathcote Seaborn, Miss Miriam Ellis, and Mr. Herbert Wootley, to all of whom the Council desire to accord their thanks. These papers, with their respective discussions, have been printed in the annual volume of Proceedings, which has been duly distributed to the members.

The Council regret to have to record the decease of several distinguished members: Sir John Stainer, Sir Arthur Sullivan, Dr. William Paley, and Mr. Charles Salomon.

Our late President, Sir John Stainer, virtually founder of the Association, will be remembered for his sympathetic and unselfish labours on behalf of our Society. Only a short time since, having resolved to decline all invitations to lecture or read papers, he made a special exception in favour of the Musical Association, and it is gratifying to refer to the fact that the last volume of Proceedings contains a valuable paper from his pen.

The Association was represented at his funeral by the Secretary and several other members.

Sir Arthur Sullivan was one of the original members of the Association.

Dr. William Paley was also an original member; his funeral was attended by our late President, Sir John Stainer, and other members.

Mr. Charles Salomon, an original member and one of the founders of the Association, was for some years its energetic and enthusiastic Secretary.

The Council are happy in being able to report a considerable accession of new members, forty-seven of whom have been

elected since 1st November, 1900, thus bringing the roll of membership to a higher total than at any previous time. This is a very satisfactory result of the efforts put forth by the Council to make the Association more widely known. Nevertheless, it would not be wise to relax such efforts, as the usefulness and influence of the Association will be augmented by a still further increase in the membership. The Council would therefore invite members to work with this end in view, 100 members of the Medical Association belong also to the International Medical Society.

The attendance at the Monthly Meetings shows an improvement on the previous year, and the Council trust that the improvement will continue.

Although the expenses of the past season have been exceptionally heavy, and the balance in hand somewhat reduced in consequence, the finances are in a thoroughly sound and satisfactory condition. The invested fund is £300, Government Stock.

The Dinner on 17th November, 1900, proved a great success, Sir Frederick Bridge presiding over a very satisfactory gathering of members and guests.

In accordance with the rules the Vice-Presidents and five ordinary members of Council—Dr. C. W. Pearce, Mr. C. A. Barry, Mr. Clifford B. Edgar, Mr. Prendergast, and Mr. T. L. Southgate—retire from office. Mr. Myles Foster also has resigned his seat on the Council.

The Council submit the following nominations:—

As President: Sir C. Robert H. Parry, M.D., Dec.

As Vice-Presidents: Mr. W. G. Adams, Mr. C. A. Barry, Mr. R. H. M. Beaumont, Sir Frederick Bridge, Mr. Gerald F. Cobb, Dr. W. H. Cummings, Mr. Marcel Garcia, Mr. Otto Goldschmidt, Dr. J. Higgin, Mr. W. MacLaren, Dr. Maclean, Prof. Frost, Lord Rayleigh, and Prof. Sanford.

As Ordinary Members of Council: Mr. Clifford Edgar, Mr. F. G. Edwards, Dr. Charles W. Pearce, Mr. A. H. D. Prendergast, Mr. T. L. Southgate, and Mr. J. F. R. Snelson. The Hon. Officers as before.

On the motion of Sir Ernest Clarke, seconded by Mr. W. Harding Bonner, the Report was adopted.

THE Hon. Treasurer's Statement of Accounts was laid before the Meeting, and passed on the motion of Mr. W. Harrison, seconded by Mr. Oliver D. Belsham.

Mr. A. H. D. Prondargast intimated that he wished to resign the office of Hon. Treasurer, owing to lack of time to attend to the duties. Mr. Prondargast's resignation was accepted with regret, coupled with a cordial vote of thanks for his past services. Mr. Clifford B. Edgar was then nominated to succeed Mr. Prondargast. With this alteration, all the nominations in the Report were carried unanimously.

A vote of thanks to the Council and Officers for their services during the past year was then passed, and the Meeting closed with a similar compliment to Dr. Cummings for his conduct in the chair.

NOTICE.

Papers or short communications for the Monthly Meetings are received from or through Members; these and suggestions as to suitable subjects and capable writers will be gladly considered by the Council.

Members are desired to make the Association and its objects as widely known as possible. The Secretary will forward Prospectuses and Nomination Forms on application.

Members preferring to do so can pay their subscriptions through their Bankers. A form for this purpose may be obtained of the Secretary.

Any change of address should be promptly notified to the Secretary, as occasional complaints of the non-receipt of books and notices are usually traceable to either old or insufficient addresses.

SPECIAL NOTICE.

At a Special General Meeting held on February 13, 1900, the following Resolution was passed: "That the Council be and is hereby authorised to add to the title of the Musical Association on its publications and prospectuses till further notice the words 'In connection with the Internationale Musikgesellschaft.'"

The English Committee of the latter Society (International Musical Society) consists of: Sir Hubert Parry, Bart. (President), Mr. Otto Goldschmidt (Vice-President), Sir Frederick Bridge, Dr. Cammings, Mr. W. H. Hadow, Sir Alexander Mackenzie, Dr. Macken, Mr. Fuller Maitland, Dr. McNaught, Professor Niecks, Professor Frost, Mr. Barclay Squire, Professor Sir C. Villiers Stankard, Mr. Sedley Taylor. The Society publishes a monthly Journal and quarterly Magazine, employing four languages, with the object of promoting interchange between different countries of information and opinions concerning the history, art, and science of music.

Owing to the long-standing position of the Musical Association, members thereof are admitted as members of the International Musical Society on very special terms, which can be ascertained from the Secretary of the Musical Association.

TUESDAY, NOVEMBER 22, 1904.

W. H. CUMMINGS, Esq., M.A., D.D., F.S.A.,
VICE-PRESIDENT,
IN THE CHAIR.

ORCHESTRAL AND CHORAL BALANCE.

Dr JOHN E. BURLAND, Mus. B. Oxon.

THE subject of *Orchestral and Choral Balance* has by no means received the attention due to it from concert-givers, conductors, writers on music, or the public. It has occasionally called forth a casual remark from Press critics when something beyond the ordinary has been noticeable in a performance; writers on orchestration have touched upon it to some extent, and an occasional lecture has been devoted to it; but in nearly every case there has been a mere nibbling at the fringe of a great subject. Even where a general survey has been attempted, it has often taken the form of a sermon preached upon some definite text, such as, for example, the otherwise valuable paper read by Professor Frost before the last Conference of the Incorporated Society of Musicians. In that paper, Dr. Frost showed that his choice of the subject was due to his having noticed a few bad examples of ill-considered balance between choir and band, where the choir was numerically much too strong for the orchestra, such as at the Handel Festivals, to a smaller extent in the Albert Hall, and to a still smaller extent at the Festivals of Birmingham and Leeds. But this is only one aspect of the subject. And though one must admit that the indictment against these performances was justified, I fail to see any justification for a general attack in the same direction upon the relative proportions of bands and choirs in this country. It is sufficient to point out that though the band may be frequently overpowered by the choir at the Crystal Palace and at the Albert Hall, the complaint of many musicians who really know what they are talking about is that many choral societies are painfully overweighted by their accompaniments.

The fact is, this subject cannot be studied from a general standpoint; every aspect of it must be considered on its own merits. Roughly speaking, performances in which choirs and bands take part may be divided into two grades: the one includes those in which the proportions of the band

are only limited by the taste of the conductor and the funds at disposal, while the choir possesses such a prestige that it can practically command the services of a sufficient number of good singers in each part to make it unnecessary to put up with faulty internal balance in the vocal force. The other class of performance includes all those cases where neither taste nor money suffice to correct faulty balance, and where the conductor is glad to accept any help available. In these cases, performances have to be given with such proportions between band and choir, and between the individual parts in each, as local circumstances dictate. In one neighbourhood, for example, soprano voices may be plentiful and good; contraltos scarce and bad; tenors may be at a premium, while basses may be numerous and powerful. In the average society there is no attempt made to counteract these local peculiarities by relining candidates for the parts which are too strong, or by making special efforts to fill the weaker parts, the social basis of such choirs being of more weight than the musical. The same remark applies to the band, in which some extraordinary proportions of parts are sometimes to be found. In one case there may be a perfect array of violins with but two or three violas; in another case the middle string parts may be well represented. Similar fortuitous specimens of balance may be found in the wind department also. Some conductors think little of leaving out certain instruments when it is inconvenient to obtain them, and thus we may find a chord which was carefully calculated by the composer to be well balanced, with bass tube and contra fagotto as the foundation, appear in performance as a top-heavy structure, the bass, perhaps, provided only by the second bassoon, or by a tenor trombone doing duty for the bass instrument of the same class; the quartet of horns frequently lacks two of its members, and so forth. But it is useless to discuss performances carried on on these lines. Most listeners will agree that it is better that audiences in the suburbs or in the provinces should be able to hear orchestras or symphonies performed even in this less perfect manner than not to hear such music at all. And we must charitably assume that the concert-givers are doing their best under adverse circumstances, and refrain from "shooting" at them. Moreover, the other class of performances, where professional orchestras and choirs of good reputation, under first-rate conductors, are concerned, gives scope for plenty of surmise.

We turn now to a brief survey of the history of the subject as far as records are available. It will be unnecessary and useless to go back to the earliest orchestras of which we have any description, such as those of Monteverde and his contemporaries. The instruments used in the orchestra, and

the proportions in which they were employed, differed so totally from anything which concerns us nowadays that we cannot learn anything by quoting the mere lists. The earliest date to which it is useful to look back is about 200 years ago—the Bach and Handel period. We know that performances given under the direction of Handel employed a much smaller number of performers than any to which we are now accustomed. Not only was this the case, but the proportions between the instruments and the voices were different. At a performance in the Foundling Chapel, given under Handel's own direction, the band contained twelve violins, three violas, three violoncellos, four hautboys, four bassoons, two trumpets, two horns, kettle-drums, harpsichord, and organ, together with twenty-three singers, *i.e.*, eighteen in the choir and five principals. It will be noticed that the hautboys and bassoons exceeded the modern proportions considerably, while the singers were much fewer than would be employed, as a rule, nowadays.

There seems to be no record which is at all exact of the proportions employed by Handel on other occasions, but according to Dr. Frost there is a tradition that he had twelve first and twelve second violins in his orchestra for most of his oratorio performances, and it is possible that the other instruments were in similar proportions to those at the Foundling Chapel.

Turning to Bach, we find in Spitta's *Life of that musician* a copy of a memorial which he wrote on August 23, 1730, addressed to the Leipzig Town Council, and called "A short but indispensable sketch of what constitutes well-appointed church music, with a few impartial reflections on its present state of decay." He prescribes as a minimum for choir "At least three trebles, three alto, three tenors, and as many basses; so that if one is unable to sing, which often happens, and particularly at this time of the year, a motet may be sung with at least two voices to each part." As a sort of counsel of perfection, he adds, as an *N.B.*: "How much better it would be if the choir were so constituted that four were available for each part, and thus the choir consisted of sixteen persons."

The instrumental force which Bach thought was not too powerful to accompany these voices was also described by him:—"The instrumental music consists of the following parts: Two or even three first violins, two or three second violins, two first violas, two second violas, two violoncellos, one double bass, two, or if needed three, oboes, one or two bassoons, three trumpets, and kettle-drums; added to this, church music is often composed for flutes, of which two at least are required." Thus he advises a total of twenty to twenty-four players against twelve to sixteen singers.

From those days onwards the size of the band as compared with the choir steadily dwindled. In 1784, at the great Handel Commemoration in Westminster Abbey, the band contained 250 and the choir 275 performers. Seven years later, at a similar festival, a much larger force was employed, the chorus being 583, the band 304. Dr. Frost, in his paper which I have already mentioned, quotes other examples, among them a St. Cecilia Day Celebration at Salisbury, in 1790, when the singers were eighteen and the players thirty-three. (At a Festival in 1768, at Birmingham, on the other hand (not quoted by Dr. Frost), the chorus had forty boys and men, against a band of twenty-five.) At a performance of the "Messiah," given in Berlin, in 1788, in the Cathedral, under the direction of J. A. Hiller, the choir numbered only 118, and the orchestra 186. We need scarcely suffer our taste to be guided by this example, however, for we are told that "Hiller did not hesitate to pander to public taste and to the vanity of the principal soloist by interpolating an Italian aria. He also attempted to modernise Handel's work by re-writing the parts for the wind instruments, and making changes in the letter of the music. So little reverence was entertained at the time for the 'Messiah' in Germany, that the advisability of composing new arias for the oratorio was openly discussed."

"It was in the nature of such festivals that efforts should have been made to increase the sonority of the orchestral volume in keeping with that of the constantly growing vocal body; and as this could be most readily accomplished by the introduction of additional wind, and, particularly, brass instruments, Handel's oratorios were subjected to all sorts of deplorable indignities for the sake of producing noise merely—a practice which has unfortunately survived to the present day."—[Arthur Mason, "Choirs and Choral Music."]

Some further examples were given by Dr. Frost from a collection of old programmes in the library of Dr. W. H. Cummings, of performances given between 1790 and 1840. The facts are very interesting, though it is impossible to endorse Dr. Frost's deduction that they prove the "swamping" of the orchestra by the chorus to be a thing of quite modern growth.

At the Antient Concerts, established in 1776, and continued until 1848, the figures were practically of Handelian proportions. In 1790, band and choir each numbered forty-three; in 1805, there were fifty-seven singers and forty-nine players; in 1802, fifty-five singers, forty-eight players; in 1817, sixty-four against forty-nine; in 1832, seventy against fifty-one; in 1850, however, the proportions fell back to sixty-eight singers and sixty-six players.

At the Birmingham Festival of 1880, the band contained eighty-one, the choir 134; at the York Festival, 1887, the band contained 282 and the choir 285; at Haringham, in the same year, there were ninety-two in the band, 139 in the choir. At Liverpool, in the same year, the players were seventy-two and the singers eighty-four in number. At Gloucester the proportions were forty-seven and eighty-three.

Against these examples (which may possibly be held to prove the dominance of Handelian traditions in England long after they were forgotten on the Continent) I have a striking counterbalance: "The first concert of the Berlin Sing-Akademie to which the general public was admitted on payment of an entrance fee, took place on October 8, 1800, in the Garrison Church, under the direction of Zelter. The chorus taking part numbered 125, and the orchestra consisted of members of the royal band, thirty-three. The work performed was Mozart's 'Requiem,' chosen in memory of Pasch (founder of the Society, who had died in the previous August)." This event, be it noted, took place during the life-time of Haydn, only nine years after the death of Mozart, and in Berlin—not in England. Haydn, moreover, is reported to have said of the musical trend of his own times, "Singing is almost one of the forgotten arts, and that is why the instruments are allowed to overpower the voice!"

Professor Proot, from whom I am quoting largely because his paper was the last contribution to this subject, brings the question nearer to our own times by giving the proportions laid down as desirable by Berlioz for a great festival performance. In one case, Berlioz says that 125 singers should be employed against an orchestra of 121. Later he gives particulars for a festival on a still larger scale, prescribing, for 467 players, 560 singers. For his "Requiem" he prescribes an orchestra of 202 and a choir of 210. Professor Proot next cites the case of Verdi's "Requiem," performed in the Church of St. Mark, Milan, on May 12, 1874, where 210 players and 120 chorists rendered the music under Verdi's own direction.

So far, so good. The facts are indisputable. But it does not seem to the present writer that Professor Proot's deductions from them were in any way justifiable, and especially is it impossible to base general rules upon isolated examples. Moreover, he omitted to refer to the event which concerned England most of all (in this connection) in the middle of the nineteenth century, viz., the production of Mendelssohn's "Elijah" at Birmingham—with a band of 126 (including doubled wood-winds) against a choir of 177. I will only supplement these figures by remarking that Mendelssohn wrote and spoke enthusiastically of the performance, and that Professor Proot himself bears frequent testimony to

Mendelssohn's "unerring judgment" in orchestral matters. The fact is, that it is not possible to compare the scoring of "Elijah" with that of Handel.

There is a proper balance between players and singers, and between the individual parts, for every work that has ever been written; but the balance that will suit one will not suit another, and the main object of this present paper is to point out where the usual arguments are weakened through the ignoring of vital statistics (apart from mere figures), and finally to assert that, with the exception of a few big performances, which have been already named, the band is not swamped by the choir in England.

I have said already that every period and every style of music demands its own balance. Let us look at some of the examples mentioned above, in detail. At the "Mussikh" performance, given under Handel's own direction at the Foundling Hospital, which has been so often quoted, the orchestra, to speak by figures only, contained thirty-three instruments, besides organ. Also, again speaking merely by figures, the choral parts were entrusted to only about eighteen singers; but when we come to look behind the figures the matter is very different. First of all, the hautboys, trumpets, and horns (in all eight performers) may be deducted from the general mass of the orchestra, for several reasons:—(1.) The hautboys played no independent parts against the choir, but, on the contrary, played in unison with the upper voice parts; (2.) The trumpets were introduced only in special numbers, and it is generally assumed that the horns doubled them in the octave below; (3.) The kettle-drums, also, only made two or three appearances in the whole course of the oratorio. How is it possible to compare, by the mere figures, such a performance with the proportions of band and choir which are employed in modern oratorios, where the wind instruments are playing almost throughout the choruses, and the score, moreover, contains four horns, three trombones, bass tuba, etc., in addition to what were used in Handel's time? But this is not all. The cases in which even the string parts play quite independently of the voices, as the "Mussikh," are few in number. What an enormous difference this makes when speaking of balance! In Handel's music the whole instrumental force was engaged in assisting the singers: in many modern scores the players spend the bulk of their time in opposing them.

But we have not even yet come to the end of the subsidiary facts which are overlooked by those who argue from figures only. One of the most important of these was that the choral singers were chiefly, if not entirely, professional, almost to within living memory, and the performance of Handel's "Alexander Balus," which was given at the

Scarborough Conference of the Incorporated Society of Musicians two years ago, reproduced the old conditions very faithfully. But any organist who has the good fortune to control a competent paid choir of about twenty-four voices, will know that he would readily pit them against an orchestra of similar numbers, or even larger, in a work like the "Messiah"; whereas if he were dealing with the average amateur society, he would want to double the number of his singers. A good example of the power of a properly-trained choir of good professional voices is to be found at St. Paul's Cathedral several times every year, where not only in Bach's *Passion Music*, but also in modern works like Spohr's "Last Judgment" and Mendelssohn's "St. Paul," the vocalists hold their own easily against, roughly, an equal number of players. The same fact may be noted at Westminster Abbey on special occasions when an orchestra is used. The difference between professional and amateur vocalists needs to be taken into account therefore in dealing with all the old records—of the Handel Commemoration, the Antient Concerts, and the earlier Provincial festivals, down to about the beginning of the late Queen's reign.

Performances on similar lines could be organised any day by a concert-manager who was able and willing to pay professional vocalists, but they cannot be held to establish any law as to numerical proportions for voluntary chorus singers who miss a certain number of rehearsals, and are not sure of attack, whose reading powers are inferior, and whose voices are less developed than those of professional vocalists.

But even this does not exhaust the list of facts which are entirely against arguments founded on figures. Dr. Frost made much of the Berlioz numbers. But let us take his "Requiem" first of all. From the orchestra, for all practical purposes of balance, we may make very considerable deductions. Berlioz's choir of 220, also, cannot be compared with the ordinary English choir which sings in four parts, for he prescribes forty-six sopranos (firsts and seconds), forty tenors (firsts and seconds), forty basses (firsts and seconds). The division of the voices into six parts adds considerably to their volume; while the fact that there are eighty male voices against forty-six female, instead of proportions which are almost reversed, as is the case in England, also makes a great difference. Berlioz, indeed, remarks: "Common-sense tells the composer, unless he be compelled to a different course by any particular form of orchestra, that he should combine his mass of performers according to the style and character of the work he brings forth, and according to the nature and the number of effects which the subject demands." So much for stereotyped figures. He also says, later: "The constant uniformity of

the excessive masses is one of the great obstacles to the production of sterling and really new works. It begets composers more from old custom, routine, laziness, and want of reflection, than from motives of economy." Later again, he remarks, with regard to his figures for a general festival: "It would be curious to try for once in a composition written *ad hoc*, the simultaneous employment of all the musical forces which might be gathered together in Paris." Observe, a composition is to be written specially to suit this gigantic force, not that this force is supposed to be an ideal one for the performance of scoring works of any period. More than this, Berlioz takes the shape of the building into consideration (and this is a point upon which I must touch later), and says—

"Supposing that a master had these at his disposal, in a vast space adapted for the purpose by an architect who should be well versed in acoustics and a good musician, he ought, before writing, to determine with precision the plan and arrangement of his immense orchestra, and then to keep them always present to his mind while writing. It is obvious that it would be of the highest importance in the employment of so enormous a musical mass, to take account of the distance or the nearness of the different groups which compose it."

Now, under these circumstances, is it possible to compare Berlioz's suggested festival force with the conditions under which the Handel Festival performances have to be carried on? The great transept of the Crystal Palace can hardly be described as "a vast space adapted for the purpose by an architect who should be well versed in acoustics and a good musician." In this case, again, Berlioz's chorus includes 200 adult males as against only 120 sopranos. Moreover, the list of the orchestra provides some amazing selections. In it are four octo-basses, fourteen flutes and piccolos of various shapes and sizes, six corni Inglesi, thirty harps, thirty pianofortes, eight pairs of kettle-drums with ten drummers (reckoning as only two, or at most three instruments, not ten, in the same way as no one would reckon a pianoforte as eighty-eight individuals when it has eighty-eight keys). There are also nine other drums of various kinds, four pairs of cymbals in different keys, two very low bells, two gongs, and four Chinese rattles, making a total of at least 200 instruments which cannot be reckoned in the ordinary ensemble. Berlioz also goes on to describe how he would use such a force, showing the enormous number of special effects he could get from various combinations. There is apparently no intimation whatever of employing them in the same way as, e.g., Mendelssohn employs choir and band together in such a chorus as "Thanks be to God," where the whole

instrumental force is pitted against the whole vocal. It is obvious, also, from many expressions used, that Berlioz was contemplating a chorus of professionally-trained singers.

To turn to the Verdi performance, as an actual event instead of a dream like Berlioz's Festival, we find facts just as powerful against the utility of calculations based on figures. It is beyond dispute that, at the first performance of the *Manzoni "Requiem,"* at Milan, on May 28, 1874, there was an orchestra of 100 players and a choir of 200 singers, all of whom, according to an eye-witness, were "leading performers," the occasion being a notable one not merely from a musical point of view, but from the fact that it was a commemoration of the first anniversary of the death of Manzoni. After some difficulty, I have obtained a description of the exact arrangement of the performers and of their personnel. Quite a large number of inhabitants of Milan, and others, had to be consulted before I could ascertain anything regarding these details. Nobody seemed to remember, except the great fact that the work was performed. One gentleman, a well-known English composer, who undertook to make inquiries among his Italian friends, obtained a post-card from a leading Milanese to the effect that "No one now remembers anything about it," and he sends it on with the following note: "By enclosed you will see that 'nether ad hoc' is the nearest whatever about it." It is more to my credit than to that of the Milanese, for my Latin biographer is good, and their memories — bad." However, Signor Belli, of the *Giornale Musicale*, of Milan, succeeded in discovering some ancient inhabitants whose memories could carry them back 27 years, and to him I am indebted for the following interesting particulars. As to the performers, "the orchestra was composed for the greatest part of the professors of the Scala Theatre, among whom one could see several celebrities, such as the violinist Trombini, Pavesi, Franchi, and the famous Patti." The chorus (and this is the important point) "were composed from the singing school of the Scala, of the Conservatoire, and the Popular School of Song, and in their midst were some distinguished artists—Galvini, de Filippi, and even the well-known Maestro Ronzi, of Parma, who sang with the basses." Such was the force at San Marco Church, and the work was repeated three times at the Theatre of La Scala with the same proportions. Here, again, you will notice the choir was of a professional and highly-trained type, as contrasted with the average amateur choral society with which composers and conductors have to deal almost entirely in England.

Up to the present, I have confined myself to the differences of personnel, and differences in the style of using instruments, and have not mentioned the important question of the

relative positions of either the individual instruments in the band, or the individual voices in the choir, nor the relative positions of band and choir. Those present who have had experience of conducting in various circumstances, will understand how important the relative positions of strings and wind are, and how an arrangement of orchestra which suits music of one period will by no means do for music of another class. In some cases, the string tone should be predominant and all else subsidiary. In other cases, as in Mozart's Symphonies, the wood-wind parts are of such importance that the players of those instruments ought to occupy positions at least equal in prominence with those of the leading violins. In certain kinds of music, again, the horns should be grouped with the wood-wind; on other occasions they should be placed with the brass. In Weber's "*Der Freischütz*," in the hunting scene, the bass trombone, as the foundation for the horn quartet, ought to be placed near the horns. The effect of the most usual arrangement, with the latter on the one side of the orchestra, and the trombone on the other side, is grotesque.

In the same way it is necessary that the placing of the parts in a choir should be carefully studied. In one concert hall, familiar to the writer, the only practicable positions for two of the voice parts were in side galleries. It then became a question as to whether the ladies' parts or those of the men were naturally the stronger, or whether in certain music one or other of them should predominate; the difference of effect secured by exchanging positions was quite remarkable. To a modified extent this may be applied to the ordinary arrangement of a choir behind a band; the voices which occupy the extreme sides do not tell by any means so strongly as those which are in the centre of the semicircle, facing the audience, even although they have to travel over the heads of the players.

It must surely be a usual experience that the question of position is of absolute importance, and yet Professor Frost makes no mention of it. Nevertheless, some of his examples were subject to vital modification by considerations of this kind. I believe there is no record as to how Handel placed his band at the Foundling Hospital, but where the force was so small this hardly mattered. The whole body of singers and players occupied so little space, and was probably so mixed up, that the result was a homogeneous blend, and I have already pointed out that both the string players and the players of harpsichords to a large extent only doubled the chorus parts. The harpsichords, indeed, on that occasion, might almost be reckoned on the side of the singers, instead of against them, as they did not play a single independent note. But, at the Handel Commemoration in 1784, the choir was in front

Notwithstanding this arrangement, the orchestra in a recent season numbered seventy, while the chorus was 403—female voices, however, very largely predominating.

Let us now return to Berlioz. I have already spoken of his remarkable list of players for a great festival, and shown that about 100 cannot be reckoned in the general number, while the chorus figures which he gave indicated a much greater volume of sound than would be produced by a similar number of choralists in England, owing to the predominance of the male voices over the female in Berlioz's list; and that beyond this were two things far more important—(1) the music for this great force was to be specially scored for it, and (2) the choir which he contemplated was to be practically a professional body. But even these important points are quite overshadowed by his description of the relative positions of the vocal and instrumental forces. On this subject Berlioz says:—

"The disposal and grouping of the players and chorus-singers come also within the province of the orchestral conductor, particularly for concerts. It is impossible to indicate arbitrarily the best method of grouping the performers in a theatre or concert-room; the shape and arrangement of the interior of these places necessarily influence the course to be taken in such a case. Let us add that it depends, moreover, upon the number of performers requiring to be grouped, and on some occasions upon the style of composition adopted by the author whose work is to be performed."

After describing the general shape of the staging upon which orchestra and choir should be placed, and recommending the semicircular form with raised steps, for the orchestra, he goes on to say:—

"There should be a horizontal flooring, or stage, more or less wide, extending in front of the first rows of the amphitheatre. On this flooring the chorus singers should be placed, in form of a fan earned three-quarters towards the public, so that all shall be able easily to see the motions of the orchestral conductor. The grouping of the chorus-singers, in consonance with their respective order of voice, will differ accordingly as the author has written in three, four, or six parts. At any rate, the women-sopranos and contraltos should be in front, seated, the tenors standing behind the contraltos, and the basses standing behind the sopranos."

Beethoven mentions these details as being only approximate, and subject to modification in various ways to fit local circumstances, and then gives some particulars of the customary arrangements at the Paris Conservatoire.

"At the Conservatoire," he says:—

- "Where the amphitheatre is composed of only four or five rows, not circular, and cannot therefore contain the whole orchestra, the violins and violas are on the stage, while the basses and wind instruments alone occupy the rows; the chorus is seated on the front of the stage, facing the public, and the women sopranos and contraltos, turning their backs directly upon the orchestral conductor, are utterly unable to see his motions. The arrangement is very inconvenient for this portion of the chorus."

Evidently there was no idea of placing the singers behind the band, and even the bad arrangement of bringing many of the vocalists so far forward that they could not see the conductor, was considered less undesirable than it would be to break through so established a custom, namely, that of having the band behind the choir. Some later paragraphs emphasise this. He says:—

- "It is everywhere of the greatest consequence that the chorus-singers placed on the front of the stage shall occupy a plane somewhat lower than that of the violins; otherwise they would considerably darken the sound of these instruments."
- "For the same reason, if there are not other rows for the choir in front of the orchestra, it is absolutely needful that the women should be seated, and the men remain standing up, in order that the voices of the tenors and basses, proceeding from a more elevated point than those of the sopranos and contraltos, may come forth freely, and be neither stifled or intercepted."
- "When the presence of the chorus-singers in front of the orchestra is not necessary, the conductor will take care to send them away; since this large number of human bodies injures the sonority of the instruments. A symphony performed by an orchestra thus more or less stifled, loses much of its effect."

The paragraphs which I have just quoted from Beethoven, prove beyond question that the relative positions of band and choir which were then customary in France were just the reverse of those in England; and I understand that no radical change has taken place to this day in France. In that country,

indeed, as in Germany, the orchestra is the thing, and occupies the raised and permanent part of the staging, while the choir is only put on as an extra, when required.

I have already considered the Verdi "*Requiem*" performance from the point of view of personnel, and my case is still further strengthened by it in connection with the relative positions of choir and band. The letter of Signor Biffi, which I have quoted, deals with this also. He says the performers were thus distributed:—

"Before the principal altar, directly without the steps of the balustrade, a stall had been erected (in a circle) with steps all round, on which were disposed the orchestras on the left side and the choral masses on the right, these last comprising men and women, divided in two groups."

The description is not very full in detail, but the main fact is certain, viz., that the arrangement was totally different from anything which we have in this country, and that the choir was not behind the band, but beside it, so that neither impeded the effect of the other. Added to this is the fact that a church can seldom be compared with an ordinary concert hall—but this trenches on a part of our subject which must be deferred until later. Three other facts must be mentioned here, however, and then we may discuss the Verdi "*Requiem*" question:—

(1.) The Maestro himself conducted a performance of the work in the Albert Hall, London, on May 15, 1875. The band numbered 150, while the choir contained between 500 and 600 singers, arranged in the usual way behind the band; and it is not recorded that Verdi made any remark about the balance of tone. (2.) Several reports of a performance of the same work at the late Leeds Festival, where the singers numbered 305, and the band 120, speak of the band as being "too loud." (3.) At the Verdi Memorial Concert in the Queen's Hall, on June 8, 1901, with a choir of 220 and a band of 80, the chorists were often quite covered by the orchestral tone—judging from a good central position in the stalls. So much for mere figures, once more.

The question of Acoustics of buildings is an important one, but it is far too large and complicated to be approached from a scientific standpoint on this occasion. It is necessary, however, to mention it, with the further remark that though neither architects, acousticians, nor musicians have as yet formulated any reliable rules for our guidance, it is possible by patient experiment to find out the best proportions and the best relative positions for band and chorus in a given building. It is especially unsafe to scheme in one building

and perform in another, as is so often done; and even in the same building the presence or absence of the audience makes an enormous difference to the effect, so that experience of performances as well as rehearsals is needed for the securing of the best results.

Some buildings swallow up a great deal of bass-tone and leave the upper parts too prominent; others need little bass, comparatively, on account of some architectural feature which assists fundamental tone.

In two churches known to myself, a striking contrast was lately presented in the same work (the "Messiah") performed by, virtually, the same individuals. In the one case, a chancel arch retained the String bass-tone to such an extent that three capable performers were almost impossible beyond the chancel; in the other case, two of these performers were accidentally absent, and the third was quite adequate for the work single-handed; here there was no arch and no padding of any kind, such as cushions or hangings, and the floor of the wide central aisle was of smooth marble.

SOME MINOR CONSIDERATIONS.

Owing to the considerable space occupied by a large body of performers, it is obviously impossible for all of them to be equally effective at any given point of hearing. In addition to this, the effect of each individual performer and of the whole mass varies according to the position of a person in the Auditorium.

A few illustrations will show what is meant here:—

1. At a rehearsal of a new work in the Royal Albert Hall a few years ago, I was following the action in the centre of the scene, and listened for the effect of a certain *fortissimo* chord in which the bass-tuba (without trombones) took part. Its tone was indistinguishable from that of the strings and wood-wind; but, listening at night from a left-hand box just over the orchestra, when that chord came, there seemed to be nothing but bass-tuba and drum in it—the great bell of the tuba pointing directly towards me. 2. In the same way, perhaps some present have noticed a habit on the part of a bass trombone player in the late Crystal Palace orchestra, of lifting his instrument over his music-stand, with the effect of making its tone stand right out of the picture and cease to blend with the other instruments. 3. At the Queen's Hall, seated in the stalls, the tone of the band is mainly steady and thin, and the trombones often cut through it too prominently (being slanted downwards right at the stall-holders). From the front row of the first circle, the effect is much better; more string-tone is heard, and the wood-wind and horns are

more individualised. In the top gallery, the effect is best of all; the volume of string tone is superb, and balances well the most strident effects of the brass instruments.

But these are drawbacks which I fear can never be overcome. It is impossible for all listeners to sit in one seat, unless they have the means (and the madness) of the late King of Saxonia to order performances for their solitary delectation. Nor can the sounds of orchestra and choir all proceed from one point, unless they be collected and blended in a great funnel and then served out to each listener direct; but such a plan, if practicable, would destroy some of the beauties of musical effect which are quite as valuable as are balance or blending—*viz.*, broad contrasts, antiphony, and those more delicate conversational touches which characterise the music of Mozart, and of the modern composers who need in frequent effects in measure. Blending, after all, not everything; any more than we should think it an improvement upon our usual custom, if we were to shake together the various courses at a banquet and huddle them out in bulk.

For the reasons listed at above, we must abandon as chimerical the thought of a universal balance and a perfect blend. It may be considered that, if this is the case, it is useless to discuss the question of orchestral and choral balance. Not at all! Though I have attempted to show that numerical rules for universal application are not only useless, but positively misleading, there remains as an ultimate guide something to which all set questions must be referred, *viz.*, the cultured taste of an eclectic and broad-minded musician.

The answering to this vital fact which came to Wagner is thus described by a well-known American writer, W. J. Henderson:—

"In the days of my youth," said Wagner, "orchestral pieces at the celebrated Leipzig Gewandhaus concerts were not conducted at all; they were simply played through under the leadership of Concertmeisters Mehl, like overtures and entr'actes at a theatre." Such performances annoyed and discouraged Wagner; but in 1839 he got a valuable lesson from hearing the Conservatoire Orchestra of Paris rehearse a Beethoven symphony under Habeneck. 'The scales fell from my eyes,' he said; 'I came to understand the value of correct execution, and the secret of a good performance. The orchestra had learned to look for Beethoven's melody in every bar—that melody which the worthy Leipzig musicians had failed to discover; and the orchestra sang that melody. This was the

secret.' A little further on, he says: 'The French idea of playing an instrument well is to be able to play well upon it. And (as already said) that superb orchestra sang the symphony. The possibility of its being well sung implies that the true tempo had been found; and this was the second point which impressed me at the time. Old Mahanock was not the medium of any abstract mathematical inspiration—he was devoid of genius; but he found the right tempo while persistently fixing the attention of his orchestra upon the notes of the symphony. The right comprehension of the *aria* is the sole guide to the true tempo.'

In another passage Mr. Henderson writes:—

- "The conductor's conception of a composition is to be revealed through the performance by means of the distributions of light and shade, the relative importance given to the outer and inner voices of the score, by the placing of the climaxes of force and speed, and by the detailed accentuation of every phrase. It is at the rehearsals that the conductor imparts to the men of his orchestra his wishes in these matters, and cautions them to go over and over certain passages till they are played to his satisfaction. He cannot do any of this at a performance. There he can only beat time, and in doing so remind his men, as I have already said, of what he told them at the rehearsals.
- "The conductor must see to it that significant passages allotted to instruments not playing the leading melody are brought out. Many of the most beautiful effects of orchestral compositions are contrapuntal, and they are too often lost through the incapacity or negligence of conductors. It requires close and sympathetic study of a score to find these bits."

An old military bandmaster whose education was evidently more practical than literary, but who had the root of the matter in him, recently said on this subject: "The secret of good band-playing is this—when you've got the *toon* let 'em *av* it out. When you *av*'n't, dry up, an' listen to them that *av*." And it is the duty of the conductor to inform the players when they have "got the *toon*."

Illustrations of the swamping of one kind of tone by another can be obtained from the organ; *gamba* tone is easily swallowed up by full diapason tone; this, in its turn, is practically wiped out in modern organs by heavy-pressure reeds. So in the orchestra and chorus—a large chorus easily maintains its own against, or even swamps, a considerable

mass of string tone. But both the choral and the string parts are easily overpowered by horns, trumpets and trombones used in masses.

I believe—I am open to correction here—that hollow, wooden platforms of the modern concert-room type are of comparatively recent introduction, and that they may be held to act as sound-boards for the orchestral stringed instruments. But performances of the old type, about which we have been speaking, were probably given with players and singers placed as they conveniently might be, without any erection of staging for them.

Moreover, we may admit the facts with regard to the numbers who took part in the old performances, without necessarily admitting that the taste of our forefathers was better than our own. Within the recollection of the youngest here, orchestral playing has improved enormously. In some directions the standard of choral singing has advanced also. Older choral methods are quite out of place in the most modern choral parts, which are so full of nuances and delicate phrasing as the most elaborate and expressive of solo-parts; and a larger number of choral singers is necessary in this more delicate music, in order to hold their own against a modern band.

Most of our choral societies contain too many inefficient members. In some cases these societies might become quite brilliant by dispensing with the services of those people who only occupy seats and add to the unnecessary padding of the surroundings.

I have spoken of the interference which one body of performers may make with the tone of others placed behind them. This is not so noticeable in smaller rooms as in larger, because in small concert-rooms the ceilings and walls act as reflectors, and enable the sound to travel round the obstacles. A good example of a "sound-shadow" is to be found at the north end of Remington Gardens, where the large trunk of a dead tree is sufficient to cut off almost entirely the sound of a fountain behind. In a similar way, a large pillar in a church will interfere with the hearing of people who are behind it, if the church is a very wide and lofty one, but hardly interferes at all if the walls and ceiling are nearer and of suitable shape.

THE MODERN ORCHESTRA.

The modern band has acquired many instruments of louder tone than the orchestra of Handel possessed, and, with perhaps the solitary exception of the hautboys, the instruments which were used by Handel have increased in power; if this were not the case, it would be impossible to understand how the old composers wrote obbligato parts so

freely for instruments like the trumpet, against a single voice. There can be no doubt that the tone of the old trumpet, playing in the high register, was thinner and more flute-like than the tone which is usually produced to-day. In the case of the trumpet, also, its use in modern scores is so entirely different from its employment by Handel and Bach that it is virtually a different instrument. Again, the old flutes, of uncertain intonation and thin tone, have been replaced by flutes which can be compared rather to a smooth organ diapason than to the flutes of former times. Clarinets have been added, horns are doubled in number, and trombones and tuba are regular members of the modern band, besides drums and other instruments of percussion which rarely figure in old scores. But added to these facts is another, that these instruments now accompany the voices in harmonic masses. The string band also is acquiring much more sonority than of old. Instead of making the strings play in three or four parts, modern scores, by introducing independent arpeggio work, vigorous tremolando, and similar accompanimental devices, have increased the tone produced by a given number of stringed instruments, as widely as the difference between, for example, Bach's two-part "Inventions" or Mozart's *Sonatas*, and the most strenuous of modern compositions for the pianoforte.

One of the worst features of modern scores, from the point of view of the conductor of a moderate society of, say, 80 or 100 choirs singers, is that the orchestral effects have been calculated for a band of about 200. It is impossible to reduce the wind instruments without actually leaving out obligato parts, while, if the string parts are reduced, they are too weak to balance the wind. Some noisy modern works, when performed by local societies in halls of moderate dimensions, seem to have nothing but the brass in their scores, for all that can be heard when the brass is playing.

Until quite recently there was an extraordinary prejudice against the doubling of wood-wind parts, writers on orchestration cried "Anathema" upon it, and there were few conductors bold enough to ignore their condemnation of it. The prejudice comes down from the days of Mozart only, when flutes and clarinets, recently introduced into scores, and being still of faulty construction, could not be relied upon to play in accurate unison. But it is quite out of date now, and in big orchestras these instruments should always be numerous enough to balance the much-increased string force and the modern brass band and "batterie." It is gratifying to note that at the big orchestral concert organized by Mr. Newman in the Albert Hall, when the band will be too strong, the wood-wind is to be trebled, and the brass doubled, and that sectional rehearsals are being held.

DISCUSSION.

THE CHAIRMAN.—We are much indebted to Mr. Borland for his paper on a very interesting and peculiar subject, and I have not the least doubt that there are almost as many opinions on the matter as there are persons in this room. These must, however, be one point on which we have all come to a conclusion, and that is, that special circumstances will always rule in the matter of the effect of an orchestra, such as the acoustical properties of the building and the placing of the strings and wind. These are the most important factors, and therefore, when we begin to lay down plans of what should be the right thing, even for the performances that are to be held at the Albert Hall, they must not be taken as *prima facie*, because the peculiar circumstances of the hall will have to be taken into consideration. Mr. Borland spoke of the number of oboes and bassoons used in Handel's compositions; I have come to the conclusion, and I think I have good ground for it, that the oboes and bassoons did not all play the instrumental parts, but that they were placed amongst the singers, and that some of the oboes played with the sopranos and some of the bassoons with the basses. I have some documentary evidence that they played from the vocal parts, and I think it probable that Handel, who was a man of great resource, was quite capable, when he could get a large orchestra, of adopting the use of any instrument that he could get to play. I have not the least doubt that even in the "Messiah," on occasions, he used trombones to supplement the bass parts. Again, with regard to the chorus, I know as a matter of fact that it was professional, not only a hundred years ago, but even at a very much later date. I can remember when a large proportion of the chorus of the Sacred Harmonic Society was engaged. There was, fifty years ago, a professional chorus who made a good living out of chorus singing—unfortunately there is no chance for them now. Also, in Handel's time, the solo singers were not so important that they refused to assist in the chorus. I do not think any good musician would object to that. I can remember a most distinguished soprano who not only sang her solos, but also assisted in the chorus. As a matter of fact, in Handel's time they were expected to do so by the terms of their engagement. Then again, coming to those interesting transcriptions of the chorus and orchestra in the series of Ancient Concerts, you will find that the major part of the chorus, men and women, were professionals. We heard a reference to Verdi and the strong wind accompaniment.

I can recollect very well being engaged many years ago to sing, in Arundel, at a performance of Rossini's "Stabat Mater." It was accompanied chiefly by a military band, and I believe what I sang has not been heard up to the present moment. I do not think we should take all Mr. Borland has said as exhausting the subject of conducting. I have witnessed at Naples a performance of choir and orchestra in a large theatre. There was not only the chief conductor, but several sub-conductors; one was placed for each part of the chorus. These are conditions which I think we should not approve here; but I have witnessed similar exhibitions in other places. Most interesting was what Mr. Borland said about the attitude of the performer—that when the trombone-player lifted his bell the tone was heard so much stronger than at other times. The fact is patent. You may have seen the man who goes about with a set of bells on a table; the gradations of tone are entirely produced by the way he turns the bells about. These are matters to which the conductor should attend: if his trombone-player does not put his instrument in the best position he should advise him. I cannot agree with the dictum of the band-master quoted by Mr. Borland, because I do not think the players are always competent to discover which part is the tune. Sometimes there are several tunes going at once, and we are all prone to think the part we have is the most important. (A vote of thanks to Mr. Borland was then moved unanimously.)

Mr. PRITCHARD.—You just now asked, "What is the principal tone of a movement?" In reference to this, it has occurred to me that in several of Handel's choruses there is clear internal evidence that the orchestra was of at least equal strength and importance with the choir; for the real, or recognised, tone of many of his choruses is given to the orchestra, and not to the voices at all. For instance, in "Fixed is His everlasting seat" ("Samson"), the tune that would at once occur to everybody's mind is—



which is played by the violins while the sopranos are singing—



Task	1	2	3	4	5	6	7	8	9	10
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I might make a similar assertion in regard to the opening of "Worthy is the Lamb," in the "Messiah," and other instances could easily be found showing that Handel often used his chorus to sing what may be termed accompanying chords, while the orchestra played the tune.

Mr. STANHAM.—Handel's idea appears to have been to relieve and brighten passages of slow harmony for the chorus by the introduction of a brilliant accompanying figure for the violins. As to the balance of power, our own ears can settle that point. I have always thought that too much importance was attached to the discovery of the chorus and band parts at the Foundling Hospital. They do not prove that those were the proportions of band and chorus that Handel wanted. They only prove that on that occasion he had a very limited chorus. He might have been glad to have had more. At the Handel Festivals, no doubt, a serious mistake has been made in the proportions of band and chorus. The Handel Festival, in spite of its critics, is really one of the finest things we do; but it might be much better than it is. The chorus is too powerful for the band; in the figure accompaniment you can see the players' arms moving, but you hear nothing except the final "snap" of the strings at the close of a passage for chorus and band. On the other hand, if in our artistic performance on the ordinary scale, the chorus is reduced to the same numbers as the band, we lose the finest effect in chorus-singing, that of a large mass of voices. One cannot fancy the real effect of such a passage as "Hide thee in the blackest night," in the "Bury" chorus in "Saul," being attained by a small body of voices; it requires the massive and broad effect of a numerous body of singers. The great drawback to the Bach Festivals at the Queen's Hall was, that there was no room for a sufficiently large chorus, the orchestra having been so badly planned that it is larger than necessary for a band, and not large enough for a band and chorus. The chorus was completely overpowered by the band; in the first chorus, the chords which ought to be heard above everything was hardly audible at all, except to those who listened carefully for it. Therefore, I think Mr. Beckford is right in maintaining that we want a larger chorus than band. One other remark I would make: that band and chorus are often too much mixed together; they should be massed separately. In a paper read at the Institute of Architects a good many years ago on the subject of concert rooms, I suggested that the orchestra should be built in two separate sections for band and chorus; the band in front, with a curved sounding board behind them rising to a height of about four feet above the lowest step of the chorus seats, which would be placed behind and above the band. The chorus would sing over the heads of the band, and would be

partially screened from the sound of it, while the audience would hear both equally.



Mr. LESTER.—With regard to the question of balance, it occurs to me that the duty of securing the proportionate balance should fall on the conductor. At the same time, of course, he cannot be responsible for such gross miscalculation as that at the close of the first movement of Schubert's Symphony in C, where the chief theme in a tutti *f* is left to the wood and horn alone, which could not possibly assert themselves over the brass, percussion, and strings. The composer should mark his degrees of sound in the ordinary general way, and it must then be left to the conductor to adjust the parts to the correct balance in the band, just in the same way as one has to do in playing pianoforte music, when an inner part has to be brought out more prominently than the rest.

The CHAIRMAN.—It strikes me it resolves itself into what I said at first. The conductor is absolutely powerless; he is the creature of circumstances that he cannot alter; all that he can do is to make the best of the conditions. What can the conductor of festivals at the Crystal Palace do? The effect of the chorus is magnificent, but no matter what orchestra you have you cannot hear it. In the performance of the "Golden Legend," the other day, it was quite impossible to hear it. Something may be done if you can get the directions of the Crystal Palace to give us a concert-room instead of a glass-house. I do not think any multiplying of the orchestra would mend matters; the room is not adapted to convey the tones. I heard a band contest at the Crystal Palace the other day. The bands played some Italian pieces—very much out of place, I thought, on that occasion—and it was absolutely ineffective. The wood-wind could not be heard; the brass was all right, but the wood nowhere. The conductor cannot alter that. I think what Mr. Portland suggested was, that the circumstances are the thing, and I hope we cannot expect anyone to pretend to draw up a perfect plan.

Mr. BURLING.—I was much interested in what Dr. Cummings said about the performances of the "Messiah"; I do not think it was generally known that the organs were mixed with the voices. With regard to the conductor, the whole question lies in his hands, except in places where he is the victim of very adverse circumstances. The Crystal Palace is hopeless. The Albert Hall is better, but it is a difficult place in which to get a good balance, and there are other halls in which it is almost impossible. On the other hand, we have plenty of moderate halls where something like a proper balance can be secured. No matter how the music is scored, the conductor must use his discretion as to the comparative prominence of the various parts, and that can only be done by a multitude of rehearsals and a lot of hard work. But it is in his hands, except for the misfortune of bad buildings, and the fact that he has not an opportunity of hearing his own performers from the position of the audience, unless occasionally he has the opportunity of hearing his own band under another conductor, when probably they do not play nearly so well as usual. But, as Dr. Cummings said, it is a matter of experiment in individual cases.

DECEMBER 30, 1901.

T. L. SOUTHGATE, Esq.,
IN THE CHAIR.

BELLS AND BELL TONES.

By W. W. STARNER, A.R.A.M.

I have chosen this subject for consideration to-night because there is much to say from the musician's point of view, and because comparatively nothing of importance has been written on the harmonics of bells (I prefer to call them bell tones) and the way they should be tuned so as to produce the purest musical sound. I do not wish to pose as an expert on the manufacture of bells, but would prefer that my remarks, other than the statements of historic fact, should be looked upon as observations of a musician on the various characteristics and peculiarities of bells, from which I shall strive to lay down certain conditions with reference to the perfecting of the tone of bells, rather than the consideration as to how such results are to be obtained. This is undoubtedly the business of the bell-founder, and for the present must be left with him. For the sake of completeness, I shall give as concisely as possible a history of church bells, with some explanation of their construction, before dealing with the matter of bell tones.

First of all, as to the definition and derivation of the word "bell." We may safely say that it is derived from the Saxon *bellan*, to hollow. Dr. Johnson, in his dictionary published in 1755, defines a bell as "a vessel or hollow body of cast metal, formed to make a noise by the action of a clapper." In another work, printed about the same time, a bell is described as "a popular machine, ranked by musicians among the instruments of percussion, made of a compound metal of copper and tin, hung in steeples of churches and in houses." We might more correctly define a bell as a hollow body of metal, ranked among the musical

instruments of percussion, made of an alloy of copper and tin, and so formed as to emit a clear ringing sound when struck.

With reference to the bells mentioned in the Bible, little need be said, as there is nothing to show that they were anything but ornaments.

Carl Engel, in his catalogue of musical instruments in the South Kensington Museum, tells us that the Jews have at the present day in their synagogues, small bells fastened to the rolls of the Law containing the Pentateuch, a kind of ornamentation supposed to have been in use from time immemorial.

It would seem that the bell originated in China, although direct evidence is not forthcoming, which is surprising, considering that bells have been in use there for nearly four-thousand years.

Small bells have been found with early mammals at Thebes, and it was the descendants of these mammals who colonized ancient Greece.

In Assyria, bells were extensively employed. Mr. Layard discovered eighty small bronze bells, having iron tongues, at Nineveh in the palace of Nimrod, thus proving that such things must have been common.

In the wars between Greece and Rome they were much used.

The oldest bells yet discovered are not castings, but plates of metal bent into shape, and riveted or brazed together where the edges meet. Such were used by the Assyrians and ancient Chinese.

It is curious to note that previous to 1840 there was but little antiquarian research in connection with the origin of the bell. However, there is not the slightest doubt that bells, as we now know them, were invented by the Christian Church, though not at the earliest stage of its existence, for then, in consequence of persecution, no loud summons was possible as a signal for assembling together. On account of this research being comparatively recent, the information respecting the invention is so indefinite that the conclusions arrived at are by inference from a few recorded facts.

Paulinus, Bishop of Nola in Campania (5th century), is credited with the invention. There is not the slightest evidence, however, to prove this to be the case.

In 750, the building of churches and sounding of bells were much encouraged by a decree which provided that a Thane's rack might be obtained by a Saxon churl or franklin, if he were rich enough to possess 500 acres of land, and had a church with a bell tower on his estate.

St. Dunstan (10th century) is credited with casting a bell which for ages hung in Canterbury Cathedral.

I must pass over the curious custom of baptising bells, and also their peculiar uses in convents and monasteries, and will here quote a passage from Dr. Stanner's well-known work on the music of the Bible, which is a reasonable conjecture as to the origin and development of the bell:—

"Plates of metal were attached to the caparisons of horses, so as to produce a jingling noise, and if these plates had a circular indentation they would be little cymbals; and if the indentation should be made deeper, and the rim gradually bent into a circular outline, a little bell is the result. The gradual change of metal plates into bells is interesting and important. The indentation of cymbals would be found to add to their vibrating power and sonority, and as this indentation became exaggerated, nothing would be more probable than that they should eventually be formed into half globes. This form is actually to be found in Roman and Greek sculpture. Then again, in course of time, these hemispherical bells would be found to be shrill and noisy in tone. Then again would naturally follow the experiments, as made in Europe, of moulding the rim slightly out-turned, and thickening the metal. Here at last we have a real bell, with the so-called sound-bow or thick lip."

The first English bell-founder was Roger de Bopeshede, of Paignton, employed in 1284 to cast four bells for Exeter Cathedral.

In many cases the ages of our earliest bells cannot be definitely determined, for they have no marks or signs as to the date when, or the place where, they were cast. The absence of dates on these bells is a great mystery. The oldest dated bell in Europe, so far as I know, is that of the Cathedral of Siena, which bears the date 1133. The oldest bell in England appears to be that lately removed from Louthbridge Church, Cornwall, on which is the inscription: "The gift of Athelstan for his soul." The earliest dated bell in England is at St. Chad's Church, Cloughton, Lancashire, 1296.

We possess, comparatively speaking, very few old bells, which may be accounted for thus: first, by the introduction of change-ringing in the seventeenth century, which caused old bells to be re-cast, so as to produce the notes of the major scale in their proper order; secondly, by the havoc and destruction made upon them at the time of the Reformation. Henry VIII., in the general confiscation of church property, looked upon bells as so much metal that could be realized, consequently many were sold as old metal. In the eighteenth century, it was a common way of raising money to pay for the restoration of the church, to petition the Bishop to grant a faculty empowering the parishioners to dispose of the bells, which were declared to be unnecessary or cracked, and therefore useless.

Although the oldest bells are not dated, they have upon them interesting marks and inscriptions, and for one moment I will call your attention to these:—

EARLIER PERIOD.

Pre-Reformation—

Dedicated to God	To Deum laudamus
“ to Saints	Sancta Catarina.
“ Invocation to Saints .	Sancta Catarina omni pro nobis

LATER PERIOD.

Religious and Royal	Fear God Honour the King.
Proverbial	Music is medicine to the mind.
Egotistical	I mean to make it understood that though I'm little I am good.
In praise of the donor of bell	King boys and keep awake, For Mr. William Henchman's sake.
Bell-founder's glorification .	Badsworth sings they were mad, Because Righe made me bad, But Abel Rudhall you may see Hath made me better than Righe.

During the eighteenth century these inscriptions in many instances were absurd and ridiculous. I will mention three as specimens:—

- (1.) The King, Pitt and Quebec for ever. Frampton Cottrell.
- (2.) I dance and sing for George our King,
Little and loud, short and proud,
Despise not the day of small things. Wilton.
- (3.) Prosperity to the Established Church
and an encouragement to enthusiasm.
St. Mary Whitkess.

If time would permit I should most certainly have something to say about bell-ringing, the curious and interesting customs connected with bells, and particulars of the most famous bells of the world, but as I am anxious to give the greatest amount of attention to the part of the subject which I feel confident is of the greatest interest to musicians, I must pass these over reluctantly.

It will not be out of place at this point to consider a few interesting facts as to how bells are made. First of all, the metal is nothing more or less than a species of bronze. It is an alloy—that is to say, a compound of two or more metals. It is curious that in bronze, density and hardness are increased by combining softer and lighter metals. Copper becomes more sonorous by combination with another metal. Authorities differ as to the proportions of copper and tin to make the best bell-metal. In the reign of Henry III., two parts of copper to one of tin were used. At the present day copper and tin in the proportion of 3 to 4 are used, and there is no doubt that small quantities of other metals found in old bell-metal are more likely impurities in the metals used to form the alloy. The bronze used for the English coinage consists of 95 parts of copper, 4 of tin, 1 of zinc; thus you see that bell-metal is more valuable than the bronze our coins are made of; indeed, the first bronze coins were made in France out of old bells melted down. There is a very erroneous opinion that silver improves the tone of bells. That is not so, and if used to any great extent would injure the tone. It was the custom, when bells were frequently cast in the churchyard, to throw a few coins into the furnace, and it may have been on account of this that such an idea was created.

Bells have been made of steel, but they are very unsatisfactory. They have also been made of glass, and successfully with regard to tone, but, this substance being very brittle, it is unable to withstand the continued use of the clapper.

The quality of tone produced by a bell depends not only upon the composition of the metal, but upon the shape, height, width, and thickness proportions. The smaller the bell the higher the pitch. Among German bell-founders the rules for proportions, taking thickness of sound bow as the unit, are: thickness of sound bow, 1; diameter of mouth, 1.5; diameter of shoulder, $7\frac{1}{4}$; height, 12.

Now the process of making bells, although difficult of intelligible explanation without the aid of models, is something like the following: First, the inner mould, or core, is made, and consists of brickwork (or an equivalent) covered with loam, and moulded to the shape of the inside of the bell by means of what is called a sweep or crook. Next, the cope or cover, which forms the outside of the bell, is made, and consists of an iron case lined with loam, moulded to the shape of the outside of the bell. Both core and cope are baked hard in an oven specially built for the purpose. A hole is then dug in the sand, into which the core is laid, the cope is placed over it, and the hole is then filled in and the sand rammed down tightly. The core and cope when thus united are called the "mould" for the bell. Everything being

ready, the furnace is tapped, and the molten metal as it pours out falls into a large iron ladle lined inside with sand. This ladle, after receiving the metal, is carried by a crane to the mould, and the metal is then poured out from the ladle into the hole in the top of the crown and fills the space between core and cope. When cool, the bell is taken out and carried into the finishing department, where it is tuned.

This used to be done by chipping away the inside of the bell, or the edge of the lip—an exceedingly clumsy method indeed. Now, however, with our improved machinery, it is done much more satisfactorily by a sort of vertical lathe. The bell is inverted, and gripped at different points by powerful vices, to keep it perfectly firm. The centre is then plumbed, and steel cutters revolve, paring off the metal from the inside of the bell for flattening, and paring off the edge of the bell for sharpening. By this means, bells can be very accurately tuned. In casting, bells are best left sharp, for flattening injures the tone much less than sharpening. A bell may readily be flattened one-eighth of a tone, or even more, but it cannot be sharpened so much; indeed, any sharpening is to be deprecated, and if at all possible should be avoided.

When a peal of bells is cast in tune, i.e., needing no adjusting in the tuning machine, it is called a "golden" peal. This used to be a rare occurrence, and only a chance, but now, with our improved appliances, and if care be taken, there is no reason why bells should not be cast so that very little tuning is required.

A less quantity of metal than is due to the calibre of the bell, produces a thin and unmusical tone. One reason why some old bells are superior to modern ones, is no doubt due to the fact that a greater weight of metal was used for the same note than is thought necessary now, on the ground of economy.

I have mentioned in general terms the means adopted in most foundries for the tuning of bells. I have had an opportunity of seeing this done in a number of foundries, and must say, that from a musical point of view, it has been done up to the present in a very unsatisfactory manner. I think that we, as musicians, have never taken the interest in bells we should have. Perhaps this may be due to the fact of their not being considered musical instruments. Unfortunately, many of them are far from being musical, but there is a remedy for this, and we have now amongst us those who can get rid of nearly all the discordant qualities to be found in the majority of existing church bells.

Some four or five years ago, one of our most eminent musicians had to pass judgment on a peal of bells. I had some conversation with him on the subject, as he knew I was

very keen about such things. The opinion he expressed was favourable so far as it went, but I will remember the last sentence, which ran thus: "They are less out of tune than most of the bells I have examined." It was this that stirred up my enthusiasm, and this alone which is responsible for the following results of my endeavours to find out why bells should be possessed of such characteristics.

Let me make it quite plain to you that I do not wish to claim any originality for the views I am about to express with reference to bell tones. They are the same as those of any other musician who will take the trouble to analyse the tone of bells, and learn from them their differences and peculiarities. As far as I know, they have never before been treated in this collective form, or from the same standpoint, and that is why I am anxious to bring these considerations before musicians, in order to stimulate the interest they should have in seeing the best musical possibilities attained.

We must understand from the first that "tone" and "bells" are very different things. Good tone does not necessarily mean that a bell is in tune with itself or with others, and a bell may easily be in tune in the strictest meaning of the term, and yet of indifferent tone. Of course, the sound of a bell is a compound tone, which presents prominently to the ear five (and in many instances more) notes.

I take for granted that everyone present is well acquainted with the harmonic series of a vibrating string. I mention this because there is one great difference to be noted in the case of bells, and that is the presence of the minor third, which is not infrequently one of the loudest tones, next to the fundamental, in the bell. Why it should be so I cannot say, and I have not yet found anyone who could give a reason for this. I put the question to one of the best known producers of acoustics, and his reply was: "We know something of the laws which govern the vibrations of a metal plate; bend it and we know less; cut-turn the rim and we know still less."

I will now explain the terms "strike note," "top note" or "fundamental," "hum note," and "nominal," as I shall have to use these frequently.

When a bell is properly struck, the first note which prominently attracts the attention of the ear is what is known as the strike note, top note, or fundamental, this is what we call the note of the bell. The low sound heard after the strike note has lost its intensity is called the hum note. The octave above the strike note is called the nominal. There are also present a minor third and perfect fifth in the first octave, and a major third and perfect fifth in the second octave.

To make this quite understood, here is a diagram of the tones of the famous Erfurt bell:—



Now in order to arrive at a clear idea of what a good bell should be, I will take three well-known specimens, the Bell of Erfurt, the Tenor of Lavenham, and the Tenor of Beverley Minster. The "tenor" is, of course, the largest bell of a peal.

BELL OF ERFURT.

Date, 1497; diameter, 8 feet $5\frac{1}{2}$ inches; weight, 15 tons 15 cwt.; note, E.



I would here point out that the notes mentioned in Helmholtz's treatise, and which he gives on the authority of the organist Gleitz, are not quite correct. He gives the first third as G sharp, whereas it should be G natural. This is a very important point to notice.

THE LAVENHAM BELL.

Founded by Miles Graye; date, 1625; diameter, 4 feet 4 inches; weight, about 2½ cwt.; note, D.



The last bell I will mention is—

THE BEVERLEY BELL.

Founded by Taylor, date, 1801; diameter, 5 feet 1 inch; weight, 42½ cwt.; note, C.



I could give you many other instances, but it would be merely duplicating the evidence, and this is quite unnecessary, as we should arrive at exactly the same conclusions. And what are these conclusions? (1.) That the hum-note should be a perfect octave below the strike-note; (2.) That the nominal should be a perfect octave above the strike-note; (3.) That the third above the strike-note is always a minor third, and the fifth perfect; (4.) That all these notes should be in perfect tune with the strike-note, and, of course, with themselves. Above the nominal, the major third and the perfect fifth can be heard in bells of considerable size; in smaller bells they are so weak as not to be worthy of consideration.

Now, turning to the greater number of our own bells, how do they agree with these conditions? In very few instances is the hum-note anywhere near the note it should be. Generally it is a sixth or seventh, and in rare instances a sixth below the strike-note. The nominal is somewhere about an eighth or sixth above the strike-note, and the other tones of the bell generally about as much away from the notes they should be as these. The third is in many instances accurate, but always a minor third.

Here are a few examples of bells supposed to be good:—

St. Saviour's, Southwark.

Founded by Samuel Knight; date, 1734; diameter, 5 feet 6 inches; weight, 52 cwt.; note, B flat.



* The first group of notes in each diagram represents the actual notes of the bell; the second group shows the notes as they should be. A ♯ or ♭ placed after a note indicates that the note is slightly incorrect in that direction.

FRIMWICK BELLS (TENOR).

Founded by Radhall; date, 1731; diameter, 4 feet 5 inches; weight, 13½ cwt.; note, D.

**ELEVENTH BELL.**

Founded by Radhall; date, 1731; diameter, 4 feet; weight, 18 cwt.; note, E.

**TENOR, ST. ANDREW'S, WELLS STREET.**

Founded by Lewis; weight, 18 cwt.; note, E flat.



I am sure you will readily admit that bells containing such tones as these cannot be as satisfactory, musically, as if they conformed to the conditions found to exist in the good bells I have mentioned. I maintain that a bell must be in tune with itself before it can possibly be in tune with others. The reason that these tones in English bells are so wide of the mark is no doubt due to several things, but principally to the alterations of proportions that have been considered necessary, so that bells may be hung for change-ringing. The gradation between the large and small bells of a peal has always been a serious difficulty to bell-founders—the difficulty of preventing the small bells of a peal being swamped by the larger ones. Of course, both shape and thickness enter largely into this matter. It is so different on the Continent, where most bells are hung “dead,” as it is

seemed, that is, of course, fixed so as not to be wrong. Under such conditions, when the design of one bell has been determined, that does for all relatively. The old method of tuning bells discards all other notes but one, and this no doubt is due to the fact that tuners do not know how to tune the other tones of the bell.

On the Continent, the best bells have their fundamental and hum-note in tune. This is one great difference between the tuning of English and foreign bells, the English in most instances only having their nominals in tune with each other, and the strike notes more or less so. There is no doubt that the first note to be tuned is the strike note, which must be freed from any interference whatever from other tones. Until this has been accomplished, nothing satisfactory with regard to the other notes can be done.

Next in importance come the hum-note and the nominal. When these are tuned in perfect octaves, as they should be, on account of the reinforcement they give to the strike-note, i.e., the note of the bell, then more definitely securing it, the other tones can be easily managed.

As I said before, the higher tones are less important, and for the simple reason that, excepting in the case of large bells, they cannot be appreciated. The fact of the hum-note being in tune with the strike-notes very greatly improves a peal of bells, and particularly of small bells. It is curious that this should be so, but they are extremely prominent, and the effect is very pleasing to the listener. One hears a succession of octaves instead of single notes.

I wish more had been written with reference to the harmonics of bells, but there are two authors who deserve mention here. Canon Simpson experimented, and wrote respecting the results of his experiments, which had the effect of turning the attention of Messrs. Taylor, the well-known founders of Loughborough, to this matter. At the present moment, as far as I am aware, no other founders in this country can produce a bell fulfilling the conditions I have laid down, in fact, I do not think that any other bell-founder has the necessary machinery to do this.

Canon Simpson in his articles devoted his attention principally to the nominals, and the desirability of making them true octaves with the fundamentals. He did not consider the hum-note much, and does not appear to have made any successful experiments with the tuning of this note.

For those who are interested in the subject, I would recommend them to read his articles which appeared in the *Pall Mall Magazine*, 1894-96, and which have been reprinted by Messrs. Skellington.

The other writer is Mr. Thomas C. Lewis, of organ-building fame, who, in his brochure on the "Modern Development of

Unmusical Tone," devotes one chapter to bells. The views Mr. Lewis takes of the notes contained in a bell do not quite agree with those I have already expressed. I quote him fully, as, to be quite fair, it would be difficult to do otherwise. He says:—

"People who are ignorant of, or are unable to recognise what should be the proper bell nature shown in tone, are similarly circumstanced to those who are no judges of organ tone, and who, with preconceived notions, rail against the mistakes, and what they are pleased to call in their academic way of training, consecutive fifths.

"These people, when they do become interested in bells, are astonished to learn that a large bell must have two distinct notes—its 'tap-tone' and that which is called its 'hum-tone.' Their first supposition very naturally is that these two notes should be, one to the other, in the relation of octaves; the hum-tone, it is noticed, is the lower note in pitch. Now, as a fact, there is nothing poorer in tone than a large bell having the tap or percussion note of a stated definite pitch, and the lower, or hum-note accompanying it, an exact octave deeper. On the contrary, and in defiance seemingly of harmony, a fine bell with the percussion or tap-tone, say K, should have its lower, or hum-tone, a major seventh below, but flattened to about the extent of a quarter of a semitone; broadly speaking, its pitch should be F rather flat, and this tone, forming a peculiar interval with the K above, although it might be supposed to be discordant, really gives the best possible result that can be had from a bell, and the musical ear is always seeking that combination of two blended tones when the true ancient bell tone has been appreciated. There are many harmonies heard, but these we pass by, as they are quite subordinate in strength.

"It would be a mistake to regard this deep tone as in any sense harmonic or depending upon the tap tone, for the tap-tone obtains its pitch from the metal and the way in which the bell is disposed, whilst the hum tone is due to the relative proportions of the shape given to the bell, and the reason for the choice of the particular pitch it should have, is that these large bells, when the hum-tone is an octave, give unsteady sounds—confused and wavering, and long experience has led founders to perceive that this flattened major seventh best steadies the bell sounds, and serves in some way to absorb discordances.

"The music master may possibly know many things in questions of sound, yet not be practical. It is of no use bringing his theories and logic to the bells. The bells make their own theory, and decide the practical virtues that should attach to their use. There are still distinctions to be observed. In a peal of church bells having eight notes,

the treble might be E and the tenor E, and the whole of these bells would be satisfactory, each bell with its hum-tone related to it as described. Now higher than this treble E the hum-tone makes itself as powerfully noticeable as the tap-tone, and it is at this point quite obvious that smaller bells should have their octaves, and in this way content the ear. For, supposing further that a peal is one of ten, and that the F sharp and G sharp are introduced, completing the series, then, these bells having tap-tones and hum-tones of equal ringing power, it would be impossible for them to sound otherwise than out of tune, if their flattened major sevenths were present in strength; and this is where so many difficulties arise in this country with small bells in ringing peals, because the distinctions which should be observed at different parts of the scale have not been understood, or the effects appreciated.

"Bells above the E mentioned, or if in a carillon, may be extended to C, all with their two tones an octave apart. So also the compass may be carried higher to the smallest bells possible with good effect.

"As bell-founding with me is a thing of the past, I may mention, without appearance of advertisement, that I have cast several sets of bells in perfect tune, by which I mean they have not been touched after casting. The largest was a set of eight for the Church of St. Andrew, Wells Street, London, the tenor being twenty-one hundredweight.

"In my method of setting out bells, I had no difficulty whatever in governing the hum-tone in connection with the upper note, as to whether it should be a major seventh flattened or the octave, it being entirely determined by the width of the upper part of the bell in relation to the lower or great diameter."

Now, what Mr. Lewis says about bells making their own theory surely proves my own case, as it is the basis on which I have laid down the lines for the better tuning of bells. I have made an analysis of the bells of St. Andrew's, Wells Street. They are indeed a good peal according to the ordinary method of tuning, but the hum-notes are by no means regular, which seems to point to the fact that Mr. Lewis found difficulty in regulating them. As a matter of fact, only two of the bells satisfy his own conditions just mentioned, the hum-notes of the remaining six being less than the major seventh below the strike note. Again, surely if it is necessary to have the hum-note a perfect eighth below the strike note in the smaller bells, it is equally necessary to have them so in all the others. I must say, that a hum-note a seventh below the strike note does not seem to me in any way to steady the bell sounds, or to absorb discordances, as Mr. Lewis states. As to the hum-note (when a perfect eighth below the strike-

note) causing the bell to give "unsteady sounds, confused and wavering," the very opposite of this is the result of my experience.

It is curious that the notes contained in a bell do not produce beats as one would expect, they seem to vibrate in different spheres; but, of course, in sounding bells together the beats are distinct enough. A bell in tune with itself may have a poor tone, on account of wrong thickness proportions. There are many such bells on the Continent.

I have continually referred to Continental bells because so much nonsense has been written about their superiority. True it is that there were famous makers in the sixteenth and seventeenth centuries, such as Van den Gheyn, Hamony, and De Mary, who tuned their bells according to the conditions I have named, which conditions are to be found in all the best bells. The secret of their tuning seems to have been lost for centuries, as in all modern Continental bells (in fact those cast during the last two centuries) there is little difference between the tuning of thines and ours.

Of course, it is simply absurd to compare the effect of ringing bells with carillons, as the sound of swinging bells is so different from that of bells hung dead and hit with a hammer.

And now, in order that you may have an opportunity of judging between the ordinary method and the true method of tuning, here are two bells placed at my disposal by Messrs. Taylor, of Loughborough.

(i) Tuned according to the old system by a well-known London firm of bell-founders.

Date, 1900.

Diameter, 1 foot 2 inches.

Note, G.



(ii) Tuned according to the conditions I have laid down.

Date, 1901.

Diameter, 1 foot 11 inches.

Note, G.



These shall be sounded in succession, and you can decide easily for yourselves which is the better bell of the two.

In conclusion, I must tender my very grateful thanks to Messrs. Taylor, of Loughborough, for much information, and for sending these bells here for my use. They have kindly assisted me in every way, and are just as keen as I am in placing before musicians the results of their work and experiments in perfecting the tuning of bells. In my own mind there is no shadow of doubt as to which is right and which is wrong. I have never yet heard any argument whatever that can in any way interfere with this better system of tuning, and I feel confident that this system must eventually command itself to all who have to deal with bells, not only to bell-founders, bell-tuners and musicians, but to the whole of the musical public.

APPENDIX.

Since this paper was prepared, an interesting correspondence has taken place respecting the well-known peal of twelve bells at Parawick, which were recently re-hung, and which I had the opportunity of thoroughly testing.

That they required re-tuning there can be no possible doubt, as the following diagrams will prove. Strange to say, the Church authorities were quite satisfied as to their perfect tune, and against the best of advice retained them in all their discordant loveliness.

The image displays two musical staves, each with five measures. The top staff is labeled with 'yth.', '4th.', '3rd.', '2nd.', and 'Tenth.' below the measures. The bottom staff is labeled with 'Tenth.', '4th.', '3rd.', '2nd.', and '1st.' below the measures. Each measure contains musical notation for a bell's sound, with some notes circled or marked with numbers in parentheses.

DISCUSSION.

THE CHAIRMAN. — Ladies and Gentlemen, I am sure you will all agree in passing a hearty vote of thanks to Mr. Sturmer for the very interesting and instructive paper which he has read, and to Messrs. Taylor for bringing the bells. (This was passed unanimously.) Bells are musical instruments, although some persons perhaps do not rank them in that category. I may remind you that many composers have made effective use of bells in their music. If I remember rightly, Meyerbeer uses one with startling effect in the "Huguenots," it sounds the tocsin for the massacre of the Protestants. Later than this now neglected opera, we have had two remarkable examples, one is in the beginning of Sir Arthur Sullivan's "Golden Legend." There, practically the whole movement is founded on a theme given out by the bells, and afterwards used in the storm episode, then, when this is over, and the devils are driven off, we hear the bells joyfully join in with the orchestra in the finish of the movement. There is a remarkable overture by Tchaikowsky in which the bells are used with terrible effect. It was played at the Crystal Palace not very long ago, and when I heard the tolling of the bells, mingled with the drums and the gang, I thought it was one of the most fearful dies I ever listened to. The composer says it is to represent the clanging of the bells in Moscow during the fire that broke out in that city. I should not omit to mention the exquisite use made of the little bell in Soudale Bernart's beautiful "Paradise and the Port" overture, the prison bell in "Treasure," and the goat bell in "Dinorah," and I need scarcely remind you that the carillon is the convenient representative of a scale of bells in the orchestra; nor need I detain you with any remarks on the few carillons with the important music written for the bells still to be heard in Holland and Belgium. Under the classification of ancient bells must be included vibrating cups or plates, as we now find in Burmah and Java. Sir Frederick Bridge has made a happy use of these in his charming "Callinot" cantata, founded on the old classical legend of certain golden bowls hung up in a tree moved by the wind, and mystically conveying advice to those who sought the shrine of the nymph. It is therefore certain that bells must be regarded as musical instruments, quite independently of their ordinary use in calling persons to church. Possibly, now that watches and

clocks are so common, bells are not quite so necessary for reminding us that the service is about to begin ; but, despite occasional complaints, I am sure musicians would be the last to desire to see them removed from our Churches. As the lecturer has said, the most important thing in their musical construction is the harmonies they give out. You must all have observed how bells differ, not only in their quality of tone, but also in the settled fundamental sound given out. If we can get the harmonies rightly to agree with the strike-note of the bell and blend with it, then we have a bell which is satisfactory to our ears—one of the two you have heard this afternoon, I think, proves this amply. There is one little exception I must take to Mr. Sturmer's paper. It is that in speaking of the history of bells and their use he referred to those little ornaments which are in the shape of bells, and which he seemed to regard as little more than ornaments. I daresay you know there are many very ancient bells in existence. I have heard, in the museum at Berlin, two old specimens. They were taken from one of the Babylonian tombs, these were of small hemispherical shape. It is not easy to get a German custodian to do anything which is "*unthöflich*," but he did open the case for me, and it was very interesting to reflect that I was hearing the sound of a bell which had, perhaps, been used in the worship of Bel ; its age was not less than 3,000 years. It is true that the bell is nothing more than a bent-up plate of metal. Professor Tyndall, in his famous lectures on sound, at the Royal Institution, gave many illustrations of vibrating plates. I am sure if he were alive—he was an old and valued member of this Association—he would have been able to tell us something more about bells. I remember very well he showed that, by making his plate vibrate with a violin bow, and putting his fingers at different points, he obtained different tones. What he did, of course, was to stop certain lines of vibrating harmonies and let the others sound out more clear and distinct, and thus materially alter the tone. As I understand our lecturer, this is exactly what happens when, by altering the thickness of different portions of the bell metal, practically we change the harmonies which enter into and affect the quality of the tone. The improved method of manufacture which Mr. Sturmer has shown, should be of value and interest not only to us, but to manufacturers. Probably, years ago, bells were made by rule of thumb, but now it is all reduced to a system, and it is pretty evident that after making proper calculations and arranging dimensions before the metal is poured into the mould, they know exactly what they will get. As to bells being out of tune with one another, I must confess this is a very difficult thing to determine. I will remember the

excitement when the new bells were put up in St. Paul's Cathedral. There was a long correspondence about them in *The Times* newspaper, started by the Rev. Mr. Haweis. He mightily approved of the foreign bells, and condemned our English make; he said most extraordinary things about their pitch and their notes, and people began to hear there was something very wrong about these bells. But a much greater authority than Mr. Haweis appeared on the scene—the late Sir John Stainer contradicted his statements, and set the whole matter right in public estimation. Poor Haweis had nothing more to say; he did not rightly appreciate the true intonation, or know the harmonics given forth. There we had a scientific musician who was able to tell us from his absolute knowledge what Mr. Haweis only guessed at. There is one thing which I hoped our lecturer would have been able to tell us, but he did not—perhaps he can do so in his reply to our discussion. I mean the reason why harmonies which arise from a bell differ from the harmonies which come from the agitation of a string, or on blowing a wind instrument. Their giving out of a minor instead of a major third must at once strike musicians. I cannot conceive why it is. The hum-note, which we all hear when the bell seems to settle down, one would think must be a resultant tone, but so far as I can work it out, it does not seem to follow the law of resultant tones. I am sure you all know that this is merely the product of subtracting the vibrating numbers from one another. I am not certain whether that law is absolutely correct and works out quite right with regard to the strong resultant tones formed on the harmonium. There is another thing I should like to know, if I may trespass so far, and that is why the pitch of the bell should flatten, as happens when it is beginning to slow down. You hear a bell which speaks, say, E, but when the sound begins to die away it no longer sounds a true E; perhaps sections of it speak independently, and perhaps through varying thicknesses they do not agree, so we get the well-known effect of beats. Possibly the bell divides into two hemispheres which are not quite equal; however, I do not know, and hope we shall hear something satisfactory on this phenomenon.

MR. BLAKELEY.—I have no doubt Mr. Stainer would, in replying to Mr. Southgate, say anything I might say, but if he will excuse me, I would make one suggestion with regard to one of Mr. Southgate's remarks about the hum-note. I am not a bell-founder myself, but supposing this g^1 to be the lowest appertaining to the bell, then the difference tone between it and the d^1 would be g , the octave below the g^1 , which is the hum-note. And again, the difference between that g^1 and the upper g^2 would also give g .

THE CHAIRMAN.—But where the hum-note is a sensitive ear—

MR. BLANCKE.—The principal notes are not based properly. But I should like to ask Mr. Sturmer whether there is ever a still lower hum-note discoverable as the resultant of other harmonics.

MR. STURMER.—I do not know of any such. The components do not interfere with each other in the way you would expect.

MR. BLANCKE.—It appears to me, in listening to bells, that you hear the beats very strongly—we heard them this afternoon—

MR. STURMER.—Yes, when bells were struck together. When struck singly this was not so. The semblance of beats was due to the moving of the bell produced by the blow of the hammer. Given a stationary bell, then the different tones, whether in or out of tune with each other, do not produce beats, a most extraordinary thing.

(The bells were then struck to prove this.)

MR. BLANCKE.—Is the hum-note a resultant tone?

MR. STURMER.—No. The hum-note is one of the tones of a bell which can be tuned in the same manner as the third, fifth or eighth.

MR. BLANCKE.—One point, perhaps, it may be interesting to note, with respect to the development of a plate into a bell. There is one very distinct difference in the vibration. A plate vibrates in nodal lines. The opposite sectors rise and fall alternately, but there is no vibration at any part of a nodal line, even where it meets the boundary of the plate. Assuming that we are dealing with a circular plate, directly this is dishd, the circumference becomes a hoop or sound bow, and the vibration is no longer simply up and down at the different segments. When vibrating with four segments the circle becomes an ellipse, with the major and minor axes alternately in opposite directions, and, while at the extremities of the two axes there may be a motion only inwards and outwards, at the angle of forty-five degrees from each of these there is a motion tangentially. That is the one essential difference, so far as I know, between the vibrations of the bell and that of a flat plate. As to the question of harmonics, present or absent, I think that is more a question of thickness than anything else.

THE CHAIRMAN.—What Mr. Hinkley says is quite true. I remember very well how Professor Tyndall sprinkled sand on his plates, and though these were made to vibrate and sound, the sand on the nodal lines remained perfectly still. With regard to the resultant tone, I would venture to mention one thing of which I have a vivid remembrance. Sir Frederick Bridge, at one of his Graham Lectures, had

two bells brought in. One sounded a fifth above the other. He said, "When you hear these two struck together you will hear the octave below the lower one." He struck them several times, but no lower note came. But at last he got a splendid low note.

MR. TAYLOR.—I do not think I can add much to what Mr. Stanner has already said, but can confidently state that what we call the harmonic tones of bells are not what is usually understood by that term. They are each principal tones, dependent upon the various curves of the bell. Thus they are not true harmonic tones like those of a string or pipe, as they do not depend upon the fundamental tone, but are to a certain extent independent of each other. It will require a very clever scientist to explain why we have a minor third in a bell. We have paid a great deal of attention to this point, and went to hear the fine large old bell at Erfurt, which is reported to have a major third, but upon carefully testing it found it an exact minor third, and our opinion is confirmed by a German priest who had previously examined the bell, and proves that the lower third was minor and the upper third major.

THE CHAIRMAN.—It is a very hopeful thing to learn that the harmonics are under control, for now we stand a chance of getting more perfect bells. The rise of the minor instead of the major thirds as one might expect is a very curious thing, but it would be useless for us to spend further time in discussing this.

MR. SUSSEX.—In speaking of the bells of the Bible, I referred to the evidence we had of these bells, which certainly shows that they were small. You remember, I fancy, the bells on the dress of the high priest; they must certainly have been very small—so small as to have been scarcely worthy of any musical consideration. And then they were made of gold, which, unfortunately, is not a very good metal for sound producing. You have heard regarding the hum-note that it is not a resultant note. I do not think there is a man living who can tell you why the third is minor in Church bells. My aim in this matter has been to bring before musicians the possibilities of these things, and I am quite sure that if anyone hears a bell with the bell-tones perfectly in tune, they will not have the slightest doubt as to which is the better method—to tune one note and let the others go anyhow, or to tune the five. I am sure it rests with musicians to see that this object is achieved. What the Chairman said about the bells of St. Paul's was rather interesting, as the founders of these bells are in the room at the present time. I must thank you very much indeed for your vote of thanks, and I am very pleased that you have taken so much interest in the subject of this paper.

JANUARY 19, 1906.

F. CUNNINGHAM WOODS, Esq., M.A., Mus.D. Oxon.,
IN THE CHAIR.

THE PHILOSOPHY OF OUR TEMPERED SYSTEM.

By JOSEPH GOODE.

In this paper I do not enter into the details of temperament. I deal with it as a whole—as the science to which belongs that modification of the roughness of intervals, which enters into our system—my object being to point out the principle of its relation to music.

I have been led to attempt to do this by observing that there is some uncertainty of thought on this subject, both on the part of mathematicians and musicians. That such uncertainty exists the following quotations attest.

Colin Brown, whose system we shall examine, makes this remark: "Music has greatly to complain of mathematicians for carrying their formulae beyond their legitimate sphere into the domain of music; and mathematicians, on the other hand, have to complain of musicians for demanding a number of secondary keys which are not mathematically or musically in true key relationship." You will observe that Colin Brown here admits that mathematicians are not clear as to the precise limits of their own science, yet he distinctly implies that it belongs to mathematics to dominate the conformation of the musical system.

This claim is also distinctly asserted by Colonel Parsonet Thomson in the following remark: "The temptation under the old systematic teaching to play out of tune was, that performers might play with perfect freedom in all keys, by playing in none; . . ."

On the other hand, our most honored recent President, the late Sir John Stainer, makes the following observation:—"When musical mathematicians shall have agreed among themselves on the exact number of the divisions necessary in

the octave; when mechanicians shall have constructed instruments on which the new scale can be played; when mathematical musicians shall have learned a new notation which shall point out to the performer the ratio of the note that he is to sound to the generator; when genius shall have used all this new material to the glory of art, then it will be time enough to found a new theory of harmony on a mathematical basis."

You will notice that even in the last quotation the precedence of the mathematician is assumed. But this assumption seems made in order to show the difficulties that hang upon it rather than as the expression of a deliberate opinion on the subject.

In pursuing then the object announced, I hope to do away with some of this uncertainty.

As the main argument in this paper was suggested by the thought of a general principle relating to art, I think it will help to impress and render that argument clear if I first explain this principle.

In both nature and art there are two kinds of truth: the truth of human impression, and absolute truth. Take nature. To the eye, at the line of the horizon, sky and earth meet. But if, having fixed upon a definite point on that line, we were to go to that point we should find sky and earth as far separate there as at the place we started from. Thus the eye on the one hand and investigation on the other, dealing with the same fact, come to two different conclusions, the one belonging to the truth of human impression, the other to absolute truth.

Now all æsthetic truth is truth of human impression, though, of course, the latter is not always æsthetic truth. With regard to the foregoing illustrations, notwithstanding the impression produced is the necessary result of the laws of light operating in connection with the human eye, it is not the less æsthetic truth. That is to say, there is æsthetic manifestation in our ordinary visual scope. Through the limitation of our sight, the continuity of nature is to it arrested—the prospect is rounded and damped in, and we have the perspective of earth and sky. But there is more than this general transfiguration. Through being thus enclosed, the various visible features acquire a more pronounced individuality as well as a special inter-relation, and all fall into a certain unity of form, character, and expression. If the extent of our sight were unrestricted, or considerably less restricted than it is, then in our visual scope both that local character and that general unity to which we are accustomed would be lost. On the one hand, in the limitless vista of similar objects individuality would disappear; on the other, the embracing of far-removed, crudely contrasted

differences would destroy that unity of expression which present natural scenes so vividly imbue. Such effects as tone of season and effect we should never enjoy.

Then, although we are accustomed to associate æsthetic manifestation with human volition, as in art, it may unfold spontaneously between outward nature and our physical endowment; being truth of human impression, it is inspiration, not special action on our part, that is fundamental to it.

I shall now endeavour to show that not only does æsthetic effect involve under all circumstances some kind of arrest in the continuity of absolute truth, but that this arrest always brings about a certain changed expression in the delineated area. To draw another illustration from nature: When, looking at some scene in the most ordinary way, we limit our survey, taking in only a portion of what is spread around—when, in fact, we select a particular view, we do so in order that certain features shall stand out more strongly than otherwise they would do, or certain relations strike the attention which otherwise would be unobserved.

Coming to art, we break the continuity of absolute truth still more definitely, and with the conscious purpose of influencing impression. In these circumstances æsthetic effect stands out more prominently from general truth, as in the following illustration.

One summer evening, I observed an artist with his easel placed near the top of a barren slope, but commanding only the bare, hillocky ground of the slope, so that there was nothing but the ground to paint. Yet in the picture this rising, uneven ground had an effect that it had not when looked at unseparated from its natural continuity. The small protuberances and every unevenness had acquired on the one hand a more marked individuality, on the other, a special relationship; whilst the sky had a far more powerful effect than the sky of the natural scene—impressing something of the largeness of the sky of mountain top—and all involved a certain symmetry, and a unity. The artist had added nothing to what he saw, yet he presented more than nature *unperceived* conveyed. He simply delineated, yet in doing so, *created*.

In ordinary vision, then, in natural observation, and in the artist's picture, the general condition of æsthetic effect is a lifting of the continuity of nature; and, as a result of this delineation, there is a remarkable change in the impression produced—the individuality of the various features seems heightened; they fall into relationship; harmony, or contrast, as the case may be, unfolds, whilst all breathes a certain unity of spirit.

We now come to music. Here it is necessary to take note of the distinction between music and all the other arts but

architecture—namely, that, whereas in these the materials of effect exist spontaneously, in music they are produced by man. There is then throughout the whole course of musical development a continual putting forth, and consequent increasing of effect. At the same time, there is also a corresponding delineating, whilst, as in organic nature, with advance definition becomes more pronounced.

To illustrate this: In polyphony there was a broadening of general form by the saweaving of subjects; yet this involved the drawing together of scattered themes. Then in the chance encounters of moving parts special harmonic effect unfolded, yet its very beauty led to selection and consequently reduction. Subsequently, modulation led to increased variety and extension of form. Here again was increase. But it involved greater expression in proportion to space, which means a more succinct effect. So in musical development this reciprocal action is seen: as effects multiply they become organised; and at each advance with greater differentiation there is more pronounced definition. That this general tendency is reflected in the progress of our musical system, a single glance will reveal. In its early development it involved many modes, which, in the progress of more highly-organised form, coalesced into two. Then again came extension in the transposition of these into different keys; and then, in the finding of the resulting scales, a closer yet more containing unity.

To pass now to the scientific point of view: While musical art has been thus emerging, the scientist has been taking it into his investigation. In the very dawn of musical history he discovered that musical sound is the result of regular pulsations, and that its pitch depends upon the number of these which occur in a certain time. He has thus been enabled to state the relations of the sounds of the scale in numerical terms, and has found that such relations exist in the arithmetical order of numbers if some are taken in and others left out. The diagram which Colla Brown gives in illustration of this is no doubt familiar to most of you.



My object in referring to it now is to point out that it also illustrates the general relation of natural and æsthetic truth. There is selection and delineation; certain natural relations

are chosen, others rejected, and the total selected becomes a new society—picked out from nature, yet perfect in itself.

I believe both musicians and mathematicians agree that the above selection of numbers expresses the true numerical relations of the degrees of the natural scale. Yes, of course, all know that stated simply those relations appear thus:—

Do	Re	Mi	Fa	So	La	Ti	Do
8-9	9-10	15-16	8-9	9-10	8-9	15-16	

So that, as well as involving the difference between tone and semitone, they involve the difference between the large and the small whole-tone.

How far musicians feel the latter difference I am not in a position to say, but that, both in musical composition and in the form of our system of scales, it is ignored is certain. Hence the complaint of the scientist, who argues that if the relations expressed in the above diagrams are those of the typical major scale, then the scales of our system must be largely untrue. That he is literally correct in this contention a moment's consideration will show. If G A of the scale of C do duty for the first and second of the scale of G, then we have a small whole-tone doing duty for a large; we have the relation 9-10 doing duty for the relation 8-9.

In order to remedy this deviation in our system from true intonation, several eminent mathematicians, or eminent musical mathematicians, have been led to devise proposed systems. One of these systems—that by Colin Brown, to whom I have just referred—I propose to examine carefully, if briefly. It is not only very ingenious, but is carried out with such thoroughness—representing as it does a distinctly serious attempt to supply an improved practical basis of music—that I select it as one as likely as any to achieve the object sought.

Probably most of you are acquainted with this system. But even to those who are not, I shall be clearer if I touch only upon certain salient points. To understand it in detail demands deliberate study.

The scales proceed by fifths, as in our system, but every fifth is true. Now, at the first departure—that is, in forming the scale of G—two differences are involved between this system and ours, and these differences are at the root of the whole difference between the two systems. The first relates to forming the second of the new scale. As you have just been reminded, G and A, as fifth and sixth of the scale of C, involve the relation 9-10, whilst, for first and second of the scale of G we want, of course, the relation 8-9. In this system, therefore, a new sound higher than the sixth of C

by the difference required—that is, in the relation 80-81, called a comma—is introduced to form the second of G.

The other difference consists simply of the fact that in forming the seventh of the new scale, the tone involved by the fourth and fifth of the old is scientifically divided. Supposing again the scale of G to be the new scale, then as F sharp (being leading note) must bear to G the relation 15-16, the relation of F natural to F sharp can only be 128-129, because these two relations exhaust the relation 8-9. Collis Brown, therefore, terms the relation 128-129 the *chromatic semitone*, and this distinction in name denotes a distinction in use: the chromatic semitone in this system never fulfils the function of diatonic semitone!

I may here state once for all that in this system no interval stands for another, however slight the difference, no note for another, however close the sounds.

You no doubt perceive already that both these points of difference in Collis Brown's system bear against that close relation of the scales which is a characteristic of ours. The fact, for instance, that the sounds F natural and F sharp can never stand to one another as diatonic semitones, is suggestive of how the change last mentioned does so, whilst the action in this respect of the first is as obvious. However, to formally demonstrate the separative action of these changes: Through two new sounds instead of only one being introduced, in order to form each new scale, the third scale will involve six new sounds, and thus can have but one sound in common with the first, whilst the fourth scale will have none.

The only other salient point of this system which I will now refer to relates to the relative minor scale. From the fact that the second of each new scale is a comma higher than the sixth of the old, there results that the major scale at the third remove stands upon a sound a comma higher than the relative minor of the first scale—thus A major stands upon a sound a comma higher than A minor, and thus, further, its leading note cannot possibly be used as leading note to A minor. Collis Brown therefore introduces in connection with each major scale a special sound, available as leading note to the sixth degree. I may just add that, as the introduction of this leading note involves the dividing of the small whole-tone, that is, of the relation 9-10 which, as you know, comes between the fifth and sixth degrees of the major scale, the complementary interval (say from G natural to G sharp, assuming the leading note is third to A minor) involves the relation 24-25, which Collis Brown terms the *superfluous chromatic semitone*.

By this introduction of a leading note to the minor tonic, a chord of the dominant seventh in perfect intonation is available in each relative minor scale.

I have included the explanation of this part of the system in my remarks, because the foregoing arrangement is largely its saving device, as we shall see later on.

I now propose to consider how this system serves as a basis for extent musical effect.

It may be said at once that in the case of a piece confined to one scale, each interval is represented in this system in a simple and regular way. The same may be said of a piece which only involves modulation into the relative minor, as there is no difference between this system and ours as regards the general relation between a scale and its relative minor. But music that involves modulation into the dominant or subdominant is not represented quite so simply—that is to say, in finding the intervals answering to a particular piece this modulating, we should have occasionally to choose between sounds a comma apart, guided by the principle of tonic relationship in mathematical strictness. Still, much of such music—that is, music passing only into nearly related keys—finds in completeness foot-hold in this system, which, let it not be forgotten, gives every interval its intonation mathematically true.

In this connection I may point out that what may perhaps be termed the "fatal facility" of modulation into the subdominant, goes in this system a step further. For instance, starting from the scale of C, if we pass to the chord of the dominant seventh in the key of G, we have not only the F sharp not in C, but also the A, which has been raised a comma, whereas, if we pass to the dominant seventh in F, we have in this chord only the usual B flat not in C. Of course, this difference springs out of the simple fact that in the remove of scale a fifth up it is the second which is the new sound special to Colin Brown's system, whereas in the remove of scale a fifth down it is the sixth; and whilst the second enters into the dominant seventh of its scale, the sixth does not.

It is extended compositions embracing removed keys that try the resources of this system. In order to represent them it has to be developed to a very elaborate extent. Take, for instance, the scene from "*Der Freischütz*," in which the air, "*Softly Sighs*," occurs. This scene begins and ends in the key of E major, the tonic of which, in Colin Brown's system, as you know, occurs a comma higher than E of the scale of C. You will remember that an important portion of the scene—about the middle—is in C. The key has then descended a major third. This portion, therefore, would not, in Colin Brown's system, come in that part which represents the regular scale of C, which is a major third and a comma below E major, but would demand the introduction of a so-to-speak duplicate scale of C. I should mention that Colin Brown,

in his description of his system, refers to a possible extension of it which would probably meet such an exigency as this. But supposing it met in this way, you would have an elaborateness capable of representing two similar keys a comma apart.

There is, however, a way in which we could bring the foregoing sections of this scale into proper relation, without introducing a second scale of C. We could begin with the major chord formed on the tonic of E minor, and call from the system the notes belonging to the major scale on this tonic as we required them. The second of the minor scale would be available for the major; for the third, the leading note to A minor would be available. The fourth and fifth of E minor and E major of course coincide. For the sixth and seventh, the sounds introduced to form respectively leading notes to D minor and E minor would be available. Thus we could get in true intonation the notes of the scale of E major formed on the tonic of E minor; and, in the same way, we could get also the notes of the scale of the dominant of E. Thus, we could probably find all the notes of those portions of the scale which are in E, at the required pitch. But to do so we should, as you have seen, have to select them step by step from various scales. The fact that the regular resources of this system do not supply foothold for the scale referred to may be put more succinctly thus. You probably know that Colin Brown has devised a harmonium from which the sounds of his system can be produced. If, then, on such a harmonium, extended sufficiently, we played those sections of the scale in question which are in E major, using that part of the key-board allotted to this scale, we could not take the other sections on that part of the key-board allotted to the scale of C—it would be a comma too low; and, vice versa, if we took the latter sections on the part allotted to C, we could not take the former on that allotted to E—it would be a comma too high.

It is evident, then, that compositions of which organically connected portions are in keys separated by four removes, to be based on true intonation, demand an extremely elaborate system of sounds in order to provide auxiliary scales. There is, then, no question whatever of the great elaborateness, both in theory and form, which this system would involve if developed sufficiently to embrace extended compositions. Still, this is only a practical question; if such a system is the only true basis of musical art in perfect manifestation, we are bound to believe in it and hope for it; but we must first be convinced that it is sound in principle. To the principle of the subject, then, I now come.

What the particular musical effect of true intonation used under ordinary circumstances would be I am not in a position

to say, but that in some circumstances it would involve a great æsthetic gain, I think extremely probable. For instance, in the *Kreutzer* sonata the second chord of the pianoforte part—the chord of D minor—has a *greater* minor third, that is, a third embracing a *small* whole-tone and a semitone. The effect probably gains nothing by this short minor third, particularly as the natural place for such a minor third is on the second, not the first, of the scale, whilst the pointed contrast of the foregoing minor chord with the second chord of the previous phrase (played by the violin) is evidently a touch of the *major* hand. It would seem, therefore, that a *full* minor third in the second chord of the pianoforte part would be more effective. Now, is true intonation the minor third coming here would be a *full* one. The preceding chord would be based on A a comma higher, which would, of course, necessitate the F natural of the chord in question being also a comma higher, and thus the third would become a *full* minor third. I do not pretend to *hear* what the effect of this change would be, but, as I have said, that it would be an improvement the æsthetic intuition of the passage seems to suggest.

The question is, then, not whether true intonation does not in certain circumstances involve an æsthetic gain, but whether departure from it does not also sometimes do so.

You will have gathered that it is upon strict observance in every scale of the difference between the large and the small whole-tone, and between the chromatic and the diatonic semitone, that Colin Brown's system is built: so what we have to decide is, whether the relations involved in such a system are really those out of which the vital elements of musical effect are conformed.

Two examples of inspired effect, which I will now refer to, are, I think, suggestive in this connection.

You know that towards the end of the chorus, "The Heavens are Telling," there is a passage of which the soprano part consists through many bars of the repetition of the note E, whilst the harmony involves several changes; in this passage the following progression occurs:—



You observe that the root of the first chord in the above example is of the same absolute pitch as the sixth degree of the scale of C, and that the C sharp figures as leading note to D of the same pitch as the second of C. Now, in true intonation there is no chord which combines these two relations—which, based on a sound answering to the sixth of a scale, contains the leading note to a sound answering to the second of that scale. In Colla Brown's system, the root of the dominant seventh in the key of D major falls upon A, a comma higher than the sixth of the scale of C, whilst the third of the dominant seventh based upon the sixth of C is leading note to D, the sixth of F, which is a comma lower than the second of C. Of course, the use of the first of these two chords for this part of Haydn's passage is quite precluded by the fact that it contains E, a comma higher than the third of C. But the use of the second is not quite so obviously shut out. It would involve the E passing to the D lowered a comma, and consequently through a large tone, and so far as this in the place for the large tone in the passing modulation, we should have melody as well as harmony in true intonation. But in the next chord the D is repeated, and at the same time forms the fifth of the dominant seventh on G. It is obvious, therefore, that if we took the D lowered a comma we should, in order to finish the passage in true intonation, require an accessory scale of C, a comma lower.

For the melody and harmony of these four bars to be then in true intonation, among other modifications of the intonation, the melody would have to descend through a major third and a comma; and the question is: Is the compression of effect involved in its descending only through a major third a source of æsthetic power?

You will notice that the chord which begins this example involves in the alto and bass parts the inversion of a major third consisting of two large whole-tones, these being the intervals A-B, B-C sharp. This, as I have remarked, involves a distinct breach of the law in true intonation, that no two precisely similar intervals should succeed one another in melody or harmony, but it enables the composer to take in the leading note to the second of C, and thus treat the two sounds answering to the second and third of that scale as the first and second of D minor. Thus a feeling of this key at this point is caused to, as it were, float upon our senses of the key of C in a way which could not otherwise be brought about.

Here is the second example:—You know the passage in the chorus "Thanks be to God" in "Elph," where, after the words "mighty their day," the harmony works from C into D flat, forming a passing cadence in that key, thence into

D natural, and thence into E flat, forming similar cadences in these two keys. Now each of these cadences is an important if a secondary climax, and there is no doubt that in the case of each we realise the regular resolution of the chord of the dominant seventh, so that we take to rest where the leading notes and their resolutions proceed three ascending progressions of a diatonic semitone. But in this passage, as expressed in our system, the key moves up through a minor third, which, in true intonation, cannot be more than two diatonic semitones and one chromatic semitone. Here, then, the effect is conveyed of a rise through three diatonic semitones, by changes involving actually a less compass, by the difference between a diatonic and a chromatic semitone, and we ask, is the compensation in this instance a source of æsthetic power? That it is in itself such a source may not seem so clear as in the Haydn example; but that it is an important condition of the æsthetic effect of the chorus as a whole seems extremely probable. Assuming the necessity of that unity of pitch which exists between the preceding and succeeding portions of the chorus, without the compensation in question, this grand central episode could not be got in.

In these examples, then, we have two episodes of marked æsthetic power in which not only the small whole-tone and the chromatic semitones do duty respectively for the larger kind of intervals, but in which this very substitution seems largely the source of that power.

You will, of course, not fail to notice that the particular differences which in the foregoing examples our system disregards, are those the strict observance of which the system we have been examining is specially devised to insure.

The conclusions calculated to be drawn from these examples may then be thus specifically stated:—

First.—That an interval may undergo in the mind a certain modification as regards its intonation. Then the intervals of any system are subject to some elasticity in their application.

Secondly.—That with regard to different kinds of the same interval, as in the case of the large and small whole-tone or the chromatic and diatonic semitones, it is not always necessary that each should occupy its particular place in the scale; but sometimes the putting one in the place of the other involves considerable æsthetic gain.

Glancing again at our present system, what in the light of the foregoing considerations do we see? We see a system of which not only the foundation, but also the complete edifice is a deduction from musical effect—a system that at each point of its development has been conformed in obedience to the exigencies of that effect. In its beginning—before the scales began to overlap—it may have reflected the principle

of true intonation is greater purity than it does now, but the persistence of æsthetic feeling led to an order of effect which, retaining organic unity though based on different and sometimes far removed keys, demands free interchange of function between all tones and all sentences. Thus, that mutation of slightly different intervals which in the examples recently referred to operates as a creative and formative principle, is reflected in our system in practical form. From the point of view of the correct placing of intervals in the scale, our system therefore involves a departure from that perfect regularity in this respect which is included in the meaning of the expression "true intonation," but as such a departure gives rise to a new and special beauty, must it not be regarded as an instance of law being overruled by higher law?

Its effect upon the conformation of the system as a whole seems to harmonize with this view. By the resulting close enmeshment of our scales the system is, as we have seen, definitely rounded in—separated from the general world of effect from which its elements are drawn, that is to say, from the infinite possibilities of musical sound outside itself; it thus betrays that delimitation which at the beginning of this paper I referred to as a fundamental condition of all æsthetic effect. In this connection a general comparison of the two systems is suggestive. In Colin Brown's, there is alternate connection and separation within, and continuity outwardly—the system rises by cones and chromatic sentences in endless progression; in ours, there is close and unbroken connection within, and outwardly definite and complete delimitation. Thus each reflects the general character of the truth on which it is based—this, in the one case, being absolute and continuous, in the other, impractical and delimited.

In the light of these remarks, the relation of the musician and the mathematician is clear. As a system is born of effect, the musician leads in its conformation—he is, in this connection, the pioneer who discovers new territory, whilst the mathematician is the surveyor who follows and measures it.

In this attempt to show that our proposed system is in principle the result of the same selective and structural action as the scale itself, only involving a further stage and new departure, I do not wish to imply that it is perfect—I do not presume to suggest that truth in the interval itself may not be more nearly approached, or that a juster placing of the different kinds of intervals according to true intonation may not be attained; but I submit that the numerical relations underlying a living musical system cannot, through the very nature of such a system, involve any form of scientific regularity. Of this you have before you definite evidence in the

numerical relations of the typical scale, whilst in the concerted use of different scales you have seen that such method as is involved in the above primary extraction from absolute truth, is itself subject to modification by further action of the æsthetic principle.

To conclude—from the point of view of this paper, temperament, regarded as a general element in our system, is not necessarily a deteriorating process leading to imperfection, but in principle it is a constructive process leading to higher form.

APPENDIX.

The following diagram may be found serviceable to non-mathematical readers. I, who am no mathematician, devised them to aid myself in realising the relations involved. Whilst the figures express the ratios, the diagrams show the general relations which these ratios bear to one another.*

Diagram 1.



Diagram 2.

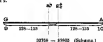
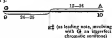


Diagram 3.



* In the diagrams the differences between the ratios are suggested for the sake of clearness.

In diagram 1 the central straight line represents a large whole tone—say F-G. The portions of this line enclosed by the two under curves represent the proportions of the interval involved respectively by two chromatic semitones, one ascending from F, the other descending from G. The portion enclosed by the upper curve represents the proportion of the interval involved by the diatonic semitones.

By simple observation of this diagram it is evident to the eye, and thus clear to the mind—

(1) That $128-135$ and $15-16$ equal $8-9$.

(2) That the difference between the chromatic and the diatonic semitones equals twice the ratio $128-135$ deducted from $8-9$.

(3) That the above difference also equals the ratio $128-135$ deducted from $15-16$, each of these two operations giving the ratio $2025-2048$, which may also be expressed $15\frac{1}{16}-16$.

In diagram 2 the straight line represents a small whole tone—say G-A. The portions enclosed by the two curved lines represent the proportions involved by two chromatic semitones, one ascending from G, the other descending from A.

This diagram conveys through the eye the rationale of the fact that in the case of a small whole tone, the difference between the sharp of the lower note and the flat of the upper, is equal to $9-10$ deducted from twice $128-135$, which gives $32768-32805$. This, the smallest difference in the musical system, is called the *schisma*.

In the observation of these two diagrams the rationale of other relations is easily perceivable. Thus, diagram 1 shows to the eye that $8-9$ is greater than twice $128-135$ by $2025-2048$; diagram 2 that $9-10$ is less than twice $128-135$ by a *schisma*. The *schisma* and $2025-2048$ must then together constitute the difference between the large and the small whole tone, and thus must equal $80-81$.

By a comparison of diagram 3 with diagram 1 the eye may read that the difference between the small whole tone and the large equals that between $14-15$ and $128-135$.

DISCUSSION.

The lecturer having been delayed, Mr. Walter Harrison, M.A., Cantab., Mus. Soc., Oxon., was requested to speak on the subject:

MR. HARRISON.—Ladies and Gentlemen, This is a subject which has interested me from boyhood. I first studied acoustics in connection with the Science and Art Department, and continued the subject right on to my University Course at Cambridge. So that rather than keep

you sitting there waiting, if I can take up a few minutes and say anything that will interest you, I shall be pleased to do so. I notice on the syllabus the name of a very well-known man, Mr. Colin Brown. I had the honour of knowing him some twenty-five years ago. He was, in fact, one of my teachers. I also had the privilege of hearing that wonderful instrument of his, the Voice Harmonium, on which his daughter played to a number of musicians at Plushow, I think in 1876. We had not only this Voice Harmonium, which I believe is now in the South Kensington Museum, but also a similar instrument, but tuned in equal temperament; and to contrast the two, we first got Mr. Colin Brown's daughter to play her pieces on her father's harmonium, and then had the same pieces played by Mr. Arnold Kennedy, I believe, on the ordinary tempered instrument. What we especially noticed was the smoothness and beauty of the chords in the minor key; the roughness that we often notice especially on the harmonium was absent. Of course the over-tones are heard very much more distinctly on the harmonium than on the pianoforte. A little while ago I was in Wales examining a number of schools. I went over six of the leading Board Schools—at least they would be called so in England—and I was struck with the way these children, many of them miners' sons and daughters, sang in beautiful harmony, in true intonation. They are taught on tonic Sol-fa principles. I do not wish to say anything now in favour of that system; but you see how, taking the tonic as the basis and singing *d r n*, &c., they get the true intonation from one note to another. You see clearly in the diagram before you there is a difference between the interval from the first to the second degree, and that from the fifth to the sixth. While both of these intervals are represented alike in our notation, they are not so in reality. Now these children make that difference absolutely; their ears are never spoiled by tempered instruments, their voices are trained naturally, and they come together and sing in harmony. The effect was delightful. Another fact noticeable is that they pronounce the vowels much better than the London children; this, of course, tends to enhance the effect.

THE CHAIRMAN.—We have to thank Mr. Goddard for a very learned paper, in which he has endeavoured to point out many of the difficulties to be noted in the scale, which we, as practical musicians, have to deal with. It would appear that Mr. Goddard has not advocated, in so many words, the adoption of the scale which he has just shown us to be the correct one. His contention would rather appear to be that the difficulties of making an actual use of the system before us would be very great, if not actually insurmountable. With our modern ideas of harmony, and our frequent changes of

key, one is almost driven to feel that our present keyboard instruments would have to be entirely reconstructed. This thought leads me to allude to the keyboard advocated some years ago by Mr. Desmouquet, of St. John's College, Oxford. Here, if my memory serves me correctly, there were about seventy divisions for the octave. The appearance of the keys, and their general arrangement were most perplexing to the eye, and at once gave me the idea that such a keyboard, though scientifically conforming to certain rules, could not possibly come into actual use. Everyone has to admit that intonations do exist in our scale, but the question which we feel inclined to ask is, how would the mathematical accuracy of this system be of practical value to the musician? Is the scale system as we know it, and accept it to-day, so deeply rooted in our musical nature that, if any new process of tuning were introduced, our feelings of tonality—which are to some extent inherent—would be upset, if not actually obliterated? Farther than that, we must bear in mind that this system, if introduced, must bring in its train an entirely new style of representing music on paper. If we leave the diatonic style and turn to that of the chromatic the difficulties appear to be much greater. Is it not often the case that the key-signature of many pieces by modern composers is but a faint suggestion of the composer's actual desire for finally establishing a definite tonality for the music he gives us? In proof of this we may turn to Dvořák's "Slavonic Dances" and Wagner's "Liebestod," and see that instead of finding the major or minor scale of ordinary conception we are confronted by a scale system which is little short of chromatic. Mr. Goddard has shown us most fully how the discrepancies in our scale arise, and where they exist, but the question is how far our fixed ideas of a keyboard would be altered if a change were made. In other words, how could we observe these alterations of scale in vocal and instrumental music? Vocally we might possibly make the minute subdivisions of the various intervals. Instrumentally, however, it would seem that the keyboard instruments would assume an appearance which the player would view with something akin to horror.

Mr. Hazenroel.—There would be no difficulty in playing any modulation on Collis Brown's instrument, but the real point of the whole matter is this, are we prepared to have an instrument with seventy-two notes to the octave? I do not think we are. Collis Brown's instrument has now been lying at the South Kensington Museum for twenty-five years. It is covered with dust. But we need no special instrument giving just intonation, the human voice can produce it quite easily. Where children are not taught at the pianoforte, but, say, with a violin, they learn the scale of

nature, and, without being aware of it, they can make all these consonances for themselves. Our only difficulty is to make a machine produce what the human voice can produce with the greatest ease. Take a Board School child taught on the tonic principle. He does not know the ratios; yet he produces them intuitively, and sings all scales in the same way. But even with regard to harmony, there is no reason why a choir singing unaccompanied pieces should not sing in perfect intonation and let us enjoy the beauty of the chords. Some of our friends here may not be perhaps too well versed in acoustics, and the lecturer has been at a great disadvantage; he has had to show many things which it would have taken several hours to thoroughly explain in detail. So that the conclusion seems to me to be that, while we should always go as far as just intonation where we can, still, for fixed-toned instruments, such as the pianoforte and organ, we cannot help ourselves, and the tempered scale is the very best thing we can have. In fact, we cannot do otherwise, except with seventy-two notes to the octave. Most of our pupils find twelve quite as much as they can manage. Before I sit down I should like to say two or three things that, perhaps, would be interesting to you. Colin Brown, as I have already remarked, was one of my teachers, and I once heard him say that when he was constructing his instrument he had many a tangle with the tuner, who was accustomed to make the ordinary instruments. He said: "If I go on fixing these rods in the manner you suggest I shall fix them all away." The mere knowledge of acoustics alone will not help us much. I remember an acoustician being asked how he would set about harmonising a melody, and he replied: "I should write octaves and fifths—octaves, of course, by preference." I may say, before sitting down, that I was very interested with the lecture. One has not the time to explain everything; therefore the lecturer has been labouring under a great disadvantage, I am sure. But we shall certainly read his paper through many times when we get it in the "Proceedings."

Mr. LAWLEY.—The question arises whether just intonation is really a desirable thing, especially considering the subject of modulation. With regard to singing, Mr. Harrison pointed out just now that the Welsh children sang correctly in natural intonation; but I hardly think that the cultivation of that would be desirable even in singing; for, supposing in a modulation a note in common to two consecutive chords, one belonging to the old key, and the other to the new, where would the change in intonation of this common note be made? I think that we cannot get away from the tempered system so long as there is any such thing as modulation, or we should be landed in all sorts of difficulties. But another question arises out of this, "Do we not correct the falseness of the

tempered intonation by the ear adjusting it in the process of recurring the sound!" I firmly believe we do. By way of illustration let me take the frequent case of the chord of the augmented sixth being enharmonically changed into a dominant seventh. When we approach the augmented sixth as such and then leave it as a dominant seventh, we receive a certain amount of shock owing to the notes having been received in relation to one tonic, and left unexpectedly in relation to another. Yet when we return to the chord again in the new key it comes naturally enough. If this is the case I think it leads us to the conclusion that the ear does, in receiving the notes of the tempered scale, adjust them to true intonation in the key for the time being, otherwise we should not perceive that difference of effect to which I have referred, seeing that the notes in the tempered intonation of the pianoforte as conveyed to the ear belong as much to the new key as to the old. My contention then is that on practical grounds just intonation is not desirable, because in modulation it would only increase and accentuate the *dissonance* we wish to hide; while, at the same time, the slight deviation from truth of the tempered scale is corrected (as I believe) by the ear.

Mr. SCHUBERT.—The time has flown so quickly over this interesting paper that I do not think we ought to spend much more time in talking. But our holder of sounds with this question as to the use of intervals is a very important one. The difficulty of forming a proper and true scale was thoroughly perceived by the Greeks, and their theorists wrote much about it. Even beyond the classical period, to go back to very ancient history, I think there are signs that the difficulty was recognised. Amongst the finds we have made in the ancient Egyptian tombs there was a very remarkable flute from the Pyramids of Amen. The flute was not less than 5,000 years old. When M. Maspero put this in my hands he said: "How are you going to play it, for there is one hole more than the number of fingers we possess." I believe that this instrument presents an example of enharmonic necessity. The vent-holes were so contrived that the first finger of the right hand covered two holes, one was closed by the lower and the other by the upper member of the finger; the interval between the two is less than a semitone. I have a copy of this curious old reed flute in my collection, and may say that upon it Mr. J. Fran was able to obtain a complete chromatic scale; it is difficult to play. I only mention this to show you that thousands of years ago this same question of division of the scale arose; after all we are practical musicians, and we must look at this matter in a practical way. I quite agree with what Mr. Harrison said about the extreme beauty of vocal harmony, sung unaccompanied

by instruments. One sometimes hears trained singers on a platform, and I always think the chords they sing are exquisite. We never hear such chords, except on strings and woodwinds. Some of you may probably have heard Beethoven's "Equal" for woodwinds. Sir Frederick Bridge has introduced this combination in the Abbey, and I think it has been heard elsewhere. I have never heard these beautiful true chords surpassed. But when you come to instruments with fixed keys it is evident that it is impossible for most of us to manage more than twelve notes to the octave. With stringed instruments of course the players can make just what intervals they like. On wind instruments also the players can do something by "bopping." But the popular instrument of today is the pianoforte. Providence has perhaps been remiss in giving us only ten fingers with which to play it, but certainly with them it is impossible to do much more than is presented on our keyboards of to-day. One instrument has been made which, perhaps, none of you but myself has heard; it was planned by Col. Perrelet Thompson, a notable mathematician and enthusiastic musician, who wrote a remarkable book showing that there should be seventy-two available sounds to the octave, but he was satisfied with forty for practical use. An organ so constructed was erected in the Welsh Chapel, Aldersgate Street, and was played by a Miss Stafford Northcote, a blind girl. I have a distinct remembrance of hearing her play Mendelssohn's "Wedding March," and I thought that I had never heard such exquisite chords—you know the opening bar, these were once called extreme chords, and they sounded singularly rich and perfect. On the ingenious keyboard, besides the ordinary black and white keys, there were various devices of hooks, points, quadrils, buttons, sticking up for the fresh intervals introduced, and this gifted girl managed to play on it. I very much doubt whether anyone else would be able to do the same. However, this elaborate contrivance shows that attempt at true intonation has been made, and to a certain extent has succeeded. There is another instance which perhaps some of you have heard. In the old organ at the Temple Church the keys were divided for F sharp and G flat, and similarly for D sharp and E flat. There were separate pallets and pipes for these differing enharmonic intervals, but Dr. Hogkin, I believe, about forty years ago, had them done away with. Since that time equal temperament has come into vogue, and possibly we do not find a necessity for these double notes now. If, as Mr. Harrison argues, voices are to sing in perfect intonation, what is going to happen when these voices are accompanied by an orchestra which is possibly playing in unison with them, because certainly not all the instruments would be

playing exactly the same intervals sang? Let us look at the violin and pianoforte; it is quite true the violin can be perfect in intonation, the pianoforte is not. The violinist takes his A from the pianoforte; he takes his E a perfect fifth above, and consequently sharper than that on the pianoforte. But when Joachim plays, say, the "Kreutzer Sonata," I do not mind it much that his intervals are not precisely those of the pianoforte. In Mendelssohn's "Thanks be to God!" in one part the voice-parts are written in sharps, and the instruments in flats, yet they go together all right. It is a most interesting question, when one remembers the manifold uses to which this enharmonic equivalence has been put. In ancient times, when the lyre and such instruments merely had to double the voice-parts in unison and octave, the ideal system of mathematical perfection was possible; but now that a harmonic has displaced a simple melodic system, it is, and must be, a matter of compromise between mathematics and practical music.

MR. LAWLER.—There is a similar case in Wagner's "Kaiser-march"; some of the parts are written in G flat, and some in F sharp.

MR. HARRISON.—Helmholtz once got Joachim to play an air on his violin, and found he preserved the exact ratios; that shows that Joachim could play the scale of nature.

MR. TWISDALE.—The just fifth is only about one-fiftieth of a semitone sharper than the tempered fifth; if I remember right, Ellis has a misprint on this point, and represents the difference as considerably greater than it really is. With regard to key-board instruments constructed to represent just intonation, we must remember that it is not the keys only, but also the strings or pipes that would have to be multiplied. If you were to multiply the organ in this room to the extent necessary you would have to consider the space that would be required, and also the enormous cost. You will find in Helmholtz that certain musicians in France had this question before them some years ago, including Auber, Berlioz, Gounod, Halévy, Thomas, and others, and they said definitely that D sharp is neither sharper nor flatter than E flat; the two notes are identical, and if you should attempt to destroy the tempered system, you would at the same time destroy the finest inspirations of the great masters, you would destroy music itself. If that is the opinion of such great musicians, we need not trouble ourselves very much as to the alleged defects of equal temperament. Spohr in his Violin School, says, "By just intonation I mean that which is according to equal temperament; for modern music no other exists." He says, "If you raise D a semitone, or lower E a semitone, the two notes will coincide."

Mr. GODDARD.—I do not feel in a position to add anything important to what has been said. It is obvious that in the present development of the art a most elaborate musical system would be needed for just intonation to be carried out, but whether such a system would be practicable or not I cannot say. I agree with the last speaker that you must make a compromise. So long as music is very simple a regular system of ratios is practicable, but when music becomes more elaborate some departure from such a system is absolutely necessary—departure, however, of such a character that in it law is superseded by higher law. If, therefore, true intonation has sometimes to be sacrificed, the sacrifice, from the æsthetic point of view, involves higher gain. What I principally wished to do was to put in evidence certain clear ideas on the subject—I wished particularly to demonstrate that musical art does not rest directly on mathematics. It rests directly on a classification and digest of its own rudimentary effects—effects which, of course, involve some system of numerical ratios. But starting with a particular system, when you produce more elaborate effects that system has to be departed from. Thus it is that æsthetic effects really lead you to depart from what, at a particular point of musical development, would be considered the correct scale. My contention is that in so departing you are in principle not violating law, but obeying higher law. Briefly you cannot rest art on absolute truth. It rests upon the truth of human impression; not on outer facts but inward feelings. That is why you cannot have a stereotyped system of mathematical relations as its exhaustive foundation. You may begin with a certain defined system, but you have to extend and modify it as art becomes more elaborate.

(A vote of thanks to Mr. Goddard was then passed unanimously.)



FEBRUARY 12, 1901.

SIR C. HUBERT H. PARKY, MUR. DOCT., D.C.L.,
PRESIDENT, IN THE CHAIR.

*THE DEVELOPMENT OF NATIONAL OPERA
IN RUSSIA.*

BY MRS. NEWMAN.

IN the paper which I had the honour of reading before the Musical Association in January, 1900, I spoke of the innate musical genius of the Russian people, and of their blind, instinctive groping towards a desired end—the foundation of a *School of National Music*. I showed how the ideas of Verdi, Gounod, Lohé, Verdi, and other musicians at the beginning of the last century, tended continually in this direction; but how none of them—gifted amateurs as they were—had been strong enough to achieve their purpose. Finally, I related how Glinka, with the intuition and power which belong to genius alone, caught up the spirit, not only of Russian music, but of the music of the neighbouring East—and in “*A Life for the Tsar*” and “*Ruslan and Liudmila*” realised the long dream of a national epic opera.

Leaving, for the present, the direct line of Glinka's influence, I wish to speak to-day of three composers who stand, in certain respects, somewhat apart from the rest of the modern Russian School: Dargomyzsky, Moussorgsky, and Scriev. Dargomyzsky attempted to found a new operatic school, that of the Russian music-drama. Moussorgsky was his immediate disciple. Scriev also claimed to have introduced the modern music-drama into Russia; but we shall see that he worked more directly under Wagnerian influence, and in a spirit sometimes opposed to the national genius. None of these three can be said to belong strictly to that school of national lyric opera inaugurated by Glinka, the chief representatives of which are Borodin and Rimsky-Korsakov; and, with a greater admixture of foreign influences, Cia and Tchaikovsky.

Glinka, in his memoirs, relates how, in the autumn of 1834, he met at a musical evening in Petersburg "a little man with a shrill treble voice, who, nevertheless, proved a redoubtable virtuoso when he sat down to the piano." The little man was Alexander Sergeievich Dargomizsky. He was then twenty-one years of age, and already much sought after in society as a brilliant pianist and as the composer of pretty drawing-room songs. Referring to Dargomizsky's Diary, we find a corresponding entry of this important meeting. He says: "Similarity of education and a mutual love of music immediately drew us together, in spite of the fact that Glinka was ten years my senior." For the remainder of Glinka's life, Dargomizsky was his faithful friend and fellow-worker; but at no time his unquestioning disciple.

Up to a certain point, Dargomizsky's musical education had been above the average, and a long course of singing lessons from an excellent master, Tschibikha, formed, no doubt, the starting-point of his subsequent success as a composer of vocal music. But at the time of his meeting with Glinka, both in his knowledge of theory and his general outlook upon music, he was simply an amateur. One distinguishing feature of his talent seems to have been in evidence even then. Glinka, after hearing his first song written to homœous words, declared that if Dargomizsky gave his attention to comic opera, he might surpass all his predecessors in that line. Contact with Glinka's personality wrought the same beneficial change in Dargomizsky that—thirty years later—Rubinstein's influence effected in Tchaikovsky: it changed him from a mere dilettante into a serious musician. The five exercise books in which Glinka had worked out Delà's theoretical system now changed hands. They were the only books of theory ever studied by Dargomizsky, but they served to make him realise the possession of gifts hitherto unsuspected. After a course of self-instruction, he felt strong enough to try his success as an operatic composer. He selected a libretto founded on Victor Hugo's "*Nôce et Drame de Pacha*." In due course, "*Esméralda*" was finished, and submitted to the Director of the Imperial Opera. Eight years elapsed before a definite reply was given to the composer, and when finally it was decided to mount the opera, Dargomizsky had completely outgrown his immature work. The light, graceful music pleased the Russian public; but the secrets of this half-forgotten child of his youth was hardly satisfactory to the composer himself. Speaking of "*Esméralda*," he says:—"The music is light and often trivial—in the style of Halévy and Meyerbeer; but in the dramatic scenes there are already some traces of that language of force and realism which I have striven since to develop in my Russian music."

It is remarkable that, although Glinka's "A life for the Tsar" had already been performed when Dargomizsky began his "Emeralds," there are no evidences of its influence in the work: it is absolutely devoid of any reflection of the national style.

In 1848, Dargomizsky began a new opera on Pushkin's dramatic poem, "The Roushalka" (=The Water-spirits?), but being greatly discouraged at his prospect of success, laid it aside until 1853. During this interval, most of his finest songs and declamatory ballads were written, as well as those unimitably humorous songs which, perhaps, only a Russian can fully appreciate. But though he matured slowly, his intellectual and artistic development was serious and profound. Writing to Prince Odoyevsky about this time, he says: "The more I study the elements of our national music, the more I discover its manifoldness. Glinka, who so far has been the first to extend the sphere of our national music too, I consider, only touched one phase of it—the lyrical. In 'The Roushalka' I shall endeavour as much as possible to bring out the dramatic and humorous elements of our national music. I shall be glad if I achieve this, though it may seem a half-protest against Glinka." Here we see Dargomizsky, not as the disciple, but as the independent worker, although he undoubtedly kept "Roushalan and Lioudmila" in view as his model for "The Roushalka."

The most striking feature of the new opera was the melodic recitative in which Dargomizsky altogether outdistanced Glinka, as regards expression and emotional intensity. Glinka's life was not rich in spiritual experiences, nor calculated to deepen his nature, and he had not—as Dargomizsky had—that gift of keen observation which supplies the place of actual experience. Dargomizsky is a psychologist, profound and subtle, who not only observes, but knows how to express himself with the laconic force of a man who has no use for the gossip of life. This fundamental characteristic of his genius is stamped on every page of "The Roushalka." He can express in a few bars—in a mere phrase—the most delicate, complex, or ephemeral manner of feeling. Even those half-tones of sentiment—not always noted by coarser perceptions—are as skillfully caught and fixed by him as the more obvious emotions. Every character in the opera has its own distinct musical individuality. Scarcely less remarkable is the humorous element. This has nothing in common with the humour of the Italian opera buffo, from which Glinka never quite emancipated himself. Dargomizsky's humour is an innate quality, as natural and simple as life itself. The chief weakness of "Roushalka" lies in its orchestration, which rarely rises to the level of the vocal writing. Unlike most of his fellow-countrymen, Dargomizsky

never made himself a master of this art. If he is sometimes felicitous in instrumentation, he owes it to innate originality rather than to special skill in the invention of new combinations. Like Schumann, he was not born a musical colourist.

The *Rossalka* plays a prominent part in Russian folk-lore, and of her innumerable legends not one is more racy of the soil than this dramatic poem by Posseltin, in which both the actual and supernatural world are depicted by a master hand. Here is the libretto in brief: A young Prince falls in love with a miller's daughter, *Natasha*. He pays her such devoted attention that the father hopes in time to see his child a princess. *Natasha* returns the Prince's affection, and gives him not only her love, but her honour. Circumstances compel the Prince to marry in his own rank. Deserted in the hour of her necessity, *Natasha*, in despair, drowns herself in the mill-stream. Now, in accordance with folk-lore legend, she becomes a *Rossalka*, seeking always to hurt mortals to her watery abode. Misfortune drives the old miller crazy, and the mill falls into ruin. Between the two acts a few years elapse. The Prince is not happy in his married life. He is perpetually haunted by the remembrance of his first love, and by remorse for her fate. He spends hours near the ruined mill dreaming of the past. One day a *Rossalka* child appears to him and tells him she is his daughter, and dwells with her mother among the water-sprites. All his old passion is re-awakened. He stands on the brink of the water in doubt whether to respond to the signs and calls of *Natasha* and the child, or whether to flee from their malign influence. Even as he hesitates, the crazy miller appears upon the scene, and fulfils dramatic justice by flinging the betrayer of his daughter into the river Dnieper. We have here the elements of an exceedingly dramatic libretto, which offers great scope to a psychological musician of Dargomizsky's type. The scene in which the Prince, with charming grace, proposes *Natasha* for the niece of his marriage; her desolation when she hears they must part; her bitter disenchantment on learning the truth, and her cry of anguish as she tries to make him realize the full tragedy of her situation, all these emotions, in swift succession, are followed by the music with astonishing force and flexibility. As an example of Dargomizsky's keen humour, nothing is better than the recitative of the professional marriage-maker, "Why so silent, pretty lassie?" and the answering chorus of young girls. Very effective, too, is the scene of the Prince's wedding festivities, in which the wailing note of the *Rossalka* is heard every time the false lover attempts to kiss his bride; the suggestion of an invisible presence throwing all the guests into consternation. As may be imagined, with a realistic temperament like Dargomizsky's, the

music of the *Rossolika* is the least successful part of the work. The sub-aquatic ballet in the last Act is rather commonplace; while *Natasha's* music, though expensive, is too human and warm-blooded for a soulless water-sprite. Undoubtedly, the *chef-d'œuvre* of the opera is the musical presentation of the *Miller*. At first, a certain humour plays about this crafty, calculating old peasant; but afterwards when disappointed greed, and his daughter's disgrace, have turned his brain, how subtly the music is made to suggest the turning of mania in that strange scene in which he babbles of his hidden treasures, "stood safe enough where the fish guard them with one eye." With what extraordinary force Dargomizsky reproduces his hideous, meaningless laugh, as he pushes the *Prava* into the swirling mill-stream. The *Miller's* scenes alone prove Dargomizsky to have dramatic gifts of the highest quality. "The *Rossolika*," first performed in 1856, met with very little success. As was usually the case with national opera then—and later—the interpretation was entrusted to second-rate artists. The critics met Dargomizsky's innovations without in the least comprehending their drift. Scrove—it was before the days of his ultra opposition to the national cause—Scrove alone placed the opera above "A life for the Tsar"; but he could not rouse the public from their indifference to every new manifestation of art. Dargomizsky himself perfectly understood the reason of his unpopularity. In one of his letters written at this time, he says: "Neither our amateurs nor our critics recognise my gifts. Their constant ideas cause them to seek for melody which is flattering to the ear. That is not my first thought. I have no intention of indulging them with music as a plaything. I want the note to be the direct representation of the word. I want truth and realism. This they cannot understand."

The comparative failure of "The *Rossolika*," undoubtedly discouraged the undertaking of a new opera. Between 1856-1860, Dargomizsky created a string of song-cycles: "Religious Errors," "The Old Corporal," "Silent Sorrow," "An Russian Song." This period saw also the production of three fantasies for orchestra: the Polish "Kazachok," a Russian "Legend," and a "Dance of Mariner."

In 1864, Dargomizsky paid a short visit to western Europe, taking with him the scores of "The *Rossolika*," and the three orchestral fantasies. In Leipzig, he made the acquaintance of several prominent German musicians, who contented themselves with pronouncing his music to be "scholarly" and "quite interesting," but made no effort to bring it before the public. In Paris, he was equally unable to gain a hearing; but in Belgium, better luck awaited him; "Kazachok" and the overture to "The *Rossolika*," were

warmly applauded in Brussels. Before returning to Russia, he spent a few days in London, and ever after spoke of our capital with enthusiastic admiration.

Dargomyzsky returned to Petersburg in May, 1865, and from this time dates a new period in his musical development, which linked him closely with that new school of Russian music, already showing such remarkable activity under the leadership of Balakirev.

Those who are acquainted with Cat's pamphlet: "*Le Musicien en Russie*," or with my Preface to "*Borodin and Liszt*," will remember that the programme of this school included the reformation of all that was artificial and unnatural in the commonly accepted forms of Italian opera. Wagner had already experienced the same dissatisfaction, and had solved the question of reform in the light of his own great genius. But the Russian composers could not entirely adopt the Wagnerian theories. While rejecting the old arbitrary divisions of the opera, they split upon the question of the importance which Wagner gave to the orchestra. Each member of the New School tried to work out the principles of reformation in his own way, keeping in view the dominant idea that the dramatic interest should fall to the singer's part, while the orchestra should be regarded as a means of enhancing the interest of the vocal music. Dargomyzsky himself was the first to formulate these principles, and, acting upon them, he created, in 1866, one of the masterpieces of Russian music—"The Gospel of the New School," as it has been called—his opera "*The Stone Guest*." A few years earlier he had been attracted to Pushkin's fine poem, which has for subject the story of Don Juan, treated, not as we find it in Mozart's opera by a mere librettist, but with the dramatic force and intensity of a great poet. Then, Dargomyzsky shrink from mutilating a fine poem, yet found himself overwhelmed by the difficulties of setting the words as they stood, now the serious nervous disorder from which he was suffering, instead of impeding his powers, seemed to lend him a frenzied energy for the fulfilment of his task. "*The Stone Guest*" is the ultimate expression of that realistic language which he employs in his early cantata "*The Triumph of Hecuba*," in "*The Ransacked*," and in his best songs. But this effort to follow with absolute fidelity every word of the book—to make the note the representative of the word—now led to the adoption of a new operatic form: to the complete abandonment of the traditional solo, duets, choruses, ensemble pieces, &c.

In "*The Stone Guest*," the singers employ that "*melos*" or "*melico-recitativo*" which is neither melody nor speech, but the connecting link between the two. "But," some one may argue, "there is nothing original in these

ideas; they had been already carried out by Wagner, and 'The Stone Guest' does not prove that Dargomizsky was an innovator, but merely that he had the intelligence to become the earliest of Wagner's disciples." Dargomizsky had some theoretical knowledge of Wagner's views, but knew very little of his music. How far he was influenced by the former, it is difficult to determine; but undoubtedly his efforts to attain a more natural and realistic method of expression, date from a time when Wagner and Wagnerism were a sealed book to him. One thing is certain: from cover to cover of "The Stone Guest," it would be difficult to find any phrase reminiscent of Wagner's musical style. What he himself thought of Wagner's music we may gather from a letter written to Serov in 1895, in which he says: "I have not yet returned your score of 'Tsarshchikov,' because I have not had time to go through the whole work. You are right; in the score-disposition there is much poetry. In the music, too, he shows us a new and reasonable way; but in his unusual melodies and methods—though they are sometimes very interesting—there is a sense of effort: *vill and here nicht*. Truth—about all, truth—but we demand taste as well."

Having read Dargomizsky's autobiography and correspondence, having discussed him with his contemporaries and disciples, with those who venerated his genius, and those who did not share his views, I am forced to the conclusion that he was not a conscious or deliberate imitator of Wagner. The passion for realistic expression which possessed him from the first, led him by a parallel but independent path to a goal very similar to that reached by Wagner. In doing this justice to the Russian composer, a sense of proportion forbids me to draw further analogies between these two men. Dargomizsky was a strong and original genius who would, I believe, have found the way to a reformed music-drama, even if Wagner had not existed; but fate and his surroundings willed that his achievement should be comparatively small. Whereas Wagner, moving on from strength to strength, from success to success, raised up incontestable witnesses to the greatness of his genius.

In "The Stone Guest," Dargomizsky has been perfectly successful in welding words and music into an organic whole: while the music allotted to each individual in the opera seems to fit him like his own skin. The chief drawback of the work is said to be a lack of scenic interest, a fault which results from the unity of construction. The music, thoughtful, subtle, and emotional, is of the kind which loses little by the absence of scenic setting. "The Stone Guest" is essentially an opera to be studied at the piano. It writes, as in a focus, most of the dominant ideas

and tendencies of the school that proceeded from Glinka and Dargomizsky, and proves that neither nationality of subject nor of melody constitutes nationality of style, and that a subject which bears the stamp and colour of the south may become completely Russian when moulded by Russian hands. Dargomizsky died in January, 1869, of heart disease, before he had quite completed his chief masterpiece. The instrumentation of "The Stone Guest" was carried out by Rimsky-Korsakov, in strict accordance with directions given by the composer on his death-bed. The director of the opera refused to give the 3,000 roubles which Dargomizsky had fixed as the price of his work. The deficit was collected among his friends, and the work was produced in 1870. The opera was pronounced a failure as Russian operas go: that is to say, it failed to bring profit into the treasury. Opportunities of heading it have, therefore, been extremely rare. But its influence was not lost, since it gave an impulse to the young school of Russian composers which resulted in the creation of many remarkable works, to which I hope to call your attention in some future paper. From the consideration of Dargomizsky, I pass most naturally to the one man who attempted to work out to their logical and ultimate conclusions the theories embodied by him in "The Stone Guest."

Moussorgsky is not less national in his sympathies than those composers whom I have mentioned as the more direct disciples of Glinka; but whereas those tendencies are lyrical and ideal, those of Moussorgsky are emphatically disposed to realism. In this respect, and also because he was pre-eminently a vocal rather than a symphonic composer, his musical temperament accords with that of Dargomizsky.

Moussorgsky started with one dominant idea—to bring music into closer relationship with actual life. Musical psychology was the chief problem of his art, to which he devoted all the ardour of his gifted, forceful temperament.

In a letter to Vladimir Stasov, dated October, 1875, he thus reveals his artistic intentions: "To seek out suddenly the most delicate and subtle features of human nature—of the human crowd, to follow them into unknown regions, to make them our own; this seems to me the true vocation of the artist. Through the storm, past shoal and hidden rock, make for new shores without fear or hindrance! . . . In the human mass, as in the individual, there are always some subtle, impalpable features which have been passed by, unobserved, untouched by anyone. To mark these and study them, by reading, by actual observation, by conjecture; in other words, to feed upon humanity as a healthy diet which has been neglected—there is the whole problem of art."

But this view, legitimate as it appears in its first expression, led him insensibly into an attitude of complete negation.

Of all the Russians, he is the only one to whom the epithet "musical nihilist" can be applied with any show of justice. Seeing nature in everything, and making the exact copying of nature the first duty of the artist, Moussorgsky naturally rejected the formula "art for art's sake" as meaningless. To attempt in a work of art the union of beauty with the material object, seemed to him a puerility belonging to the childhood of art. As his career went on, his contempt for the beautiful deepened into something approaching to dislike. He seemed purely attracted to distance and distortion.

But in order to understand Moussorgsky's work, and to make allowance for his peculiarities, it is necessary to realize the social conditions under which he lived. He is, above all, a true child of the nation, of that period of moral and intellectual ferment which followed the accession of Alexander II., and the emancipation of the serfs. Of the little group of composers who were then striving to give musical expression to their newly-awakened nationality, not one was so entirely carried away by the literary and political movements of the time as Moussorgsky. Every man was asking himself and his comrades in the words of the most popular novel of the day: "What shall we do?" And the answer was this: "Throw aside social and artistic traditions. Bring down art from the Olympian heights, and make her the handmaiden of honesty. Suck out for beauty, but for truth. Let enjoyment give place to endeavour. Go to the people. Hold out the hand of fellowship to the illiterate masses, and learn from them the true purpose of life." To this democratic and utilitarian spirit, to this deep compassion for the humiliated and offended, to this contempt for the dandyism and dilettantism of the past generation—is all this Moussorgsky strove to give expression in his music, just as Pouchkin was expressing it in painting; as Tchernichovsky, Dostoevsky, and Tolstoy expressed it in fiction. And, however much we may disagree with his æsthetic doctrines, we must confess that he carried out, with logical sequence and conviction, a considerable portion of his programme. In his songs he has best succeeded in expressing himself; and these will remain—unless perhaps—but a series of "human documents," which bear witness to the spirit of their time as clearly as any of the great works of fiction which were then agitating the public conscience.

Moussorgsky was born in 1839, and early in life entered one of the smartest regiments in the service. Borodkin met him at assauts, the complete type of military dandy, playing pot-pourris from Verdi's operas to an audience of appreciative ladies. But soon after this, Moussorgsky began to frequent Dargomizsky's musical evenings, and here he met Balakirev,

Balakirev, who, after forty years of labour, of mental suffering, of disappointment and ill-health, is still as flame to manhood in contact with a sympathetic spirit, must indeed have been a magnetic personality in those first years of his enthusiasm and working powers. Under his influence Moussorgsky very soon cast the slough of dandyism, and became the most assiduous of workers. While studying under Balakirev, he composed several pieces for piano, and incidental music to "*Oedipus*"; also, in 1861, a work which would surprise those who only knew his later compositions, but which shows how insistent and thorough was Balakirev's determination that his disciples should grasp the principles of tradition before setting up as innovators. "*The Symphonic Intermezzo*" is a solid piece of workmanship which shows the clearest traces of Bach's influence. The middle movement, founded on a natural theme, is very original in its development, but kept strictly upon classical lines.

By this time Moussorgsky, against the wishes of his relations, had abandoned his military career in favour of the musical profession. His health was already impaired, perhaps by the effort to combine serious study with the gay life of a popular gambler, and his work had to be frequently interrupted by periods of enforced idleness. These holidays were usually spent with his mother, for whom he showed a most touching affection.

During one of these visits to the country, in 1862, Moussorgsky read Flaubert's realistic novel, "*Salammbo*," and resolved to make it the subject of an opera. He wrote his own libretto in verse, but the task proved beyond his immature powers, and he abandoned it after completing the first three numbers. From 1864 to 1867, he devoted himself almost entirely to song-writing, and produced a remarkable series of pictures from national life, of which I have spoken in detail in my lectures on Russian song. But in 1869, he turned his attention to a project suggested to him, half in joke, by Dargomizsky. This was a literal dramatic setting of Gogol's prose comedy "*The Match Maker*."

Moussorgsky believed that he was on the point of inventing a new operatic form: "*opéra dialogué*," as he calls it. Writing to Cui, he says: "I am striving as far as possible to reproduce every change of intonation used by the actors in their dialogues, even those which have apparently a very slight motive, and occur on unimportant words." The first act of "*The Match Maker*" was actually completed, and privately performed in Petersburg, Dargomizsky taking the leading part. But probably the experiment was pronounced unsuccessful, for Moussorgsky made no effort to finish the work. A greater and far more shamble project had already taken its place in his mind.

Pushkin's great historical drama, "*Boris-Godunov*," was suggested to him at this time, probably by Stanov, as a subject far more suitable for musical treatment. Again he drew up his own libretto, adhering as faithfully as possible to the original text. The work absorbed him completely for a year; and the orchestration, always the hardest task to Moussorgsky, as to Dargomizsky, occupied another six months. When, in 1870, the work was submitted for approval to the operatic authorities, it was refused on the ground that it gave too little opportunity to the soloists. Acting on the advice of his friends, Moussorgsky consented to make some desired alterations, and in the amended form the opera was accepted. The work consists of a prologue and four acts, and opens with a brief instrumental introduction. Moussorgsky, striving to follow nature as far as possible, discards the stereotyped divisions and ensemble pieces of the Italian opera, while at the same time the chief interest is centred in the chorus and dialogue. In spite of its length, and lack of what is termed "pleasing melody," in spite, too, of some fluctuations of originality in the instrumentation, "*Boris-Godunov*" possesses the saving graces of dramatic interest and freshness of inspiration. The subject, familiar to students of Russian history, lends itself to broad dramatic treatment. The scene is laid in Moscow. The date about 1590. About this time, owing to the unbecomingly of Feodor, heir of Ivan the Terrible, the actual power passed into the hands of his brother-in-law, the ambitious and powerful nobleman, Boris-Godunov. Between Boris and the complete enjoyment of his power, stood the child Demetrius, the younger brother of the half-witted Feodor. One day Dmitri was found lying dead in the courtyard of his residence. Suspicion fell upon Boris, but he declared that the boy had committed suicide in a fit of epilepsy, and as he showed himself a capable ruler in exceedingly critical times, the memory of the crime was gradually obliterated. In the prologue to Moussorgsky's opera, a deputation from the people comes to invite Boris to accept the crown. He consents, and the whole of the coronation scene which follows is very stirring, working up to a fine climax in the declamatory solo, sung by Boris on the steps of the Cathedral in the Kremlin. Between the prologue and the first act some years are supposed to elapse, during which Boris rules wisely and well; but now an avenger arises to punish this Russian Macbeth for his half-forgotten crime. A rumour reaches Moscow that the child Dmitri was not really dead, but had been sheltered all these years in a monastery, under the name of Gregory, and that, aided by the Poles, he was on the point of marching to the capital to enforce his claim to the crown of the Romanovs.

The first scene of the first act shows us the Monk and Choudor Pimen in his cell in the Choudor monastery. It is midnight, and the monk is still busy at his desk: on the ground near him sleeps the novice Gregory, whose accidental likeness to the boy *Dmitri* is afterwards the cause of so much trouble. Pimen's monologue is a very fine piece of declamation. The music is beautiful as well as realistic, and gives a wonderful impression of solemnity and peace. The chorus of monks on their way to their chapel (heard off the scene) is admirable in its ecclesiastical character. Pimen leaves the cell as the bell rings for prime, and Gregory wakes to find himself alone; a few words spoken by him, and heard above the distant chanting of the monks, bring this scene to a curious but effective close. In the second scene, Gregory, who has heard rumours of his mysterious origin, and half believes himself to be *Dmitri*, escapes from the monastery and is on his way to Poland, where the Jesuits are ready to make him the instrument of a fresh intrigue against Russia. This scene, which takes place in an inn on the Lithuanian border, is generally considered Moussorgsky's masterpiece. The music and words are welded with extraordinary closeness: every phrase has its most delicate nuance of intention; each character his own musical individuality. There is also much that is national and much that is humorous in this scene, but I must not go into minute detail.

The first half of the second act, which takes place in the Kremlin, gives an elaborate, realistic picture of medieval Russian life. During this act, Boris is apprised of the invasion of Russia by the false Dmitrius. Boris had not actually murdered Dmitri with his own hand, but the wish was father to the thought, and he believes himself morally the child's assassin. The news that the Pretender is at his gates causes his reason to totter. When the messenger has left him alone, his disordered brain conjures up the spectre of his victim. Puschkin wrote this episode with *Macbeth* in his mind; but, curiously enough, Moussorgsky, who has a decided gift for depicting the "grady," and generally can make goose-flesh rise at will, has not been very successful in his music to this scene.

From the Kremlin we are transported to the Polish frontier, and introduced to the beautiful Polish adventuress, Marina, who is at once the mistress of the false Dmitrius, and the tool of the Jesuit priest Kozness. It is strange that even Moussorgsky, with all his realism and powers of psychological analysis, should not be able to rise above the conventional representation of the Pole in music. Like Gluck, he has no idea beyond the *Marinka*. Marina's aria takes this form; and again in the duet, when the lovers meet by moonlight at the fountain, we are pained by the eternal mazurka

rhythm. During the whole of the love-scenes the sinister *Saxgon* hovers, like a *Mephistopheles*, in the background.

The last act opens upon the council of the Boyars, who are thrown into confusion by the mental derangement of the Tsar Boris. But while the debate is taking place, Boris unexpectedly appears. He comes in with a wild distracted air, muttering to himself; but the sight of his council restores his calm and dignity. He ascends the throne, and confers with the nobles upon the invasion by the Pretender. At this moment the monk *Prav* requests an audience. He is admitted, and he tells the Tsar the true account of *Dmitri's* fate; how he rescued him at the eleventh hour, and cared for him in a monastery till his death a few years afterwards. The recital so moves Boris that he is overcome with sudden illness. Feeling his end approaching, he assumes the garb of the monk and asks for the last sacraments. His death scene, during the chanting of a hymn by the monks, is very impressive, and shows *Mossorgsky's* dramatic power at its best. Properly speaking, the opera should end here. The last act, which was only added to the second edition of the work, is distinctly an anti-climax, and makes an ineffective close to a work which, on the whole, is so distinguished by life and colour as "*Boris Godunov*."

In this work, *Mossorgsky* is at the zenith of his power, and it must be regarded as the chief foundation upon which rests his reputation as an operatic composer. Many consider that after "*Boris Godunov*" his inspiration began to fade; at any rate a new tendency made itself felt—that leaning towards poetical symbolism which gives a unique interest to the work of his last years. Certainly some of his clearest songs were composed after "*Boris Godunov*"; notably the musical satires upon the aristocrats and critics of his day, and the inevitable "Nonsense" scenes. The two pictures from medieval Russian life which constituted his share of the ballet "*Mlada*," were also written about this time; "*The worship of the Black God*" and the "*March of Slavonic Knights*."

In 1872, *M. Stasov* suggested to him a subject for a new historical tragic-drama, the dramatic story of the Princess *Rhovanastchina*, and again in 1875 yet another subject, *Gogol's* tale, "*The Fair of Sovochinsk*," which he never completed. The action of "*Rhovanastchina*" takes place in the time of Peter the Great, at the moment when all Russia was divided between the old order and the new. It opens with a fascinating orchestral introduction based upon national airs. The scene represents dawn on the Moskva river. The bells are ringing for matins, and as the sun rises, the increasing light reveals that Holy of Holies to all Russian hearts—The

Red Square in Moscow. It would be impossible to point to anything in Russian music more intensely and touchingly national than this prelude to "Khorostikhina." We are accustomed to regard the "Overture after" as an evocation from national life; but a true Muscovite will tell you that it is Moscow painted on a drop-scene, compared with which this prelude is a rare picture by Veresthagin or Yablonsky.

As in "Boris-Godunov," so in "Khorostikhina," religious music plays a conspicuous part. Moussorgsky was very well versed in the old music of the Russian church, and is very correct in his selection of ecclesiastical themes. For instance, in "Khorostikhina," the *Raskolniki*, or "Old Believers," are very prominent, and their music is, as it ought to be, distinctly archaic in character. The celebrated Preobrazhensky Guards—Moussorgsky's old regiment—also play an important rôle in the opera, and their characteristic march is founded upon one actually used in the time of Peter the Great. The character of the loyal, passionate, impetuous *Marcha*, the *Ruskoednik*, is one of Moussorgsky's finest achievements in musical psychology. Altogether, "Khorostikhina" is very fine, if at all, inferior to "Boris-Godunov." Yet at the time he was engaged upon it, his health was falling rapidly. He suffered from a wearing, nervous illness, which was aggravated by the excessive use of drugs and stimulants, in which he sought relief from constant depression. No care, or affectionate remonstrance on the part of his friends, availed to save him from the inevitable end. Yet he wrote, all the time, in feverish haste, striving against death for the laurels of earthly fame. All that he wrote during these years—the Song-cycle "The Sun is Green," and "The Songs and Dances of Death," with their terrible symbolism underlying the laughing forms of the folk-songs and dances—all bears witness to the spiritual conflict which he was waging at this time.

Moussorgsky died in 1881. He entrusted the instrumentation of "Khorostikhina" to his friend, Rimsky-Korsakov, and Rimsky-Korsakov considers that much of the merit of the work is due to him. Other critics, however, who were more intimately acquainted with Moussorgsky's strong individuality, are of opinion that Rimsky-Korsakov—acquainted only by the most friendly motive—has "improved" away, together with much of Moussorgsky's crudity, many of his most salient characteristics.

Hitherto, I have been chiefly attracted to those Russian composers who most distinctly represent the national tendency; but no view of Russian music would be historically complete which did not take into account that leaning towards cosmopolitanism most distinctly shown in the works of Rubinstein and Serov, and less strongly in many

of Tchaikovsky's compositions, Rubinstein represented Teutonic influences in general; Serov, Wagnerism in particular. I find it impossible to speak of both composers in my present paper; I have selected therefore the lesser known of the two.

Alexander Nikolaevich Serov, born at Petersburg in 1860, was one of the first enlightened critics in Russia. As a child, he received an excellent education. Later on, he was entered at the School of Jurisprudence, where he passed as "popular" among his comrades, and only made one intimate friend. This youth—a few years his junior—was Vladimir Stasov, destined to become a greater critic than Serov himself. Stasov, in his "Reminiscences of the School of Jurisprudence," has given a most interesting account of this early friendship which, unfortunately, ended in open hostility when, in later years, the two men developed into the leaders of opposing camps. When he left the School of Jurisprudence in 1840, Serov had no definite views as to his future, only a vague, dreamy yearning for an artistic career. At his father's desire he accepted a clerkship in a Government office, which left him leisure for his musical pursuits. At that time he was studying the violin. Gradually he formed, if not a definite theory of musical criticism, at least strong individual predilections. He had made some early attempts at composition, which did not amount to much more than improvisations. Reading his letters to Stasov, at this time, we see that joined to a vast, but vague ambition, was the irritating consciousness of his lack of genuine creative inspiration.

In 1842, Serov became personally acquainted with Glinka, and although he was not at that period a fervent admirer of this master's music, yet personal contact with this great man gave him an impulse towards more serious work. He began to study Glinka with newly opened eyes, and became enthusiastic over "*Lark for the Tsar*" and some of his songs. But when, in the autumn of the same year, "*Ruslan and Liudmila*" was first mounted, his enthusiasm seems to have received a check. He announced to Stasov his intention of studying the opera seriously, but his study, judging from what he writes on the subject, must have been very superficial. All that was new and lofty in intention seems to have passed clean over his head. The document is interesting, too, as showing how indifferent he was at that time to the great musical renaissance which Wagner had inaugurated in Western Europe, and to the equally remarkable movement of which Balakirev was the leader in Russia.

In 1843, Serov began to think of composing an opera; but he was as unstable in his choice of a subject as in his selection of a musical ideal. He finally decided upon "*The Merry Wives of Windsor*," and had actually made some

initial attempts, when his musical schemes were cut short by his transference from Petersburg to the dull provincial town of Simskopol. Here he made the acquaintance of the revolutionary Bakounin, who had not yet been exiled to Siberia. The personality of Bakounin made a deep impression upon Serov, as it did later on upon Wagner. Under his influence, Serov began to take an interest in modern German philosophy, and particularly in the doctrines of Hegel. As his intellect expanded, the quality of his musical ideas improved. They showed greater originality; but it was an acquired originality rather than innate creative impulse. He acquired the theory of music with great difficulty; and being exceedingly anxious to master counterpoint, Stanow introduced him by letter to the celebrated theorist Hanka, then residing in Petersburg. Serov corresponded with Hanka, who gave him some advice, but the drawbacks of the system of "college by post" were only too obvious to the eager pupil separated by two thousand versts from his teacher. During this time he was continually on the point of throwing up his appointment and devoting himself entirely to music; but his father sternly disapproved what he called "these empty dreams."

It was through journalism that Serov first acquired that much-desired footing in the musical world. At the close of the forties, musical criticism in Russia had reached its lowest depths. The two leading men of the day, Oshkichev and Letov, possessed undoubted ability, but had simply drifted into specialism; the one as the panegyrist of Mozart, the other of Beethoven. And besides this, both of them published their works in German. All the other critics of the leading journals might well have said, in the language of Wordsworth, "our work is but a sleep and a forgetting." These were the men whom Moussorgsky caricatured so mercilessly in his satirical songs. It is not surprising, therefore, that Serov's first articles, which appeared in the "Contemporary" in 1851, should have caused a sensation in the musical world. We have seen that his literary equipment was by no means complete, that his convictions were still fluctuant and unstable; but he was now awake to the movements of the time, and joined to a cultivated intelligence a "wit that kills you like a mace." His early articles dealt with Mozart, Beethoven, Donizetti, Rossini, Meyerbeer, and Spontini, and in discussing the last-named, he explained and defended the historical ideal of the music-drama. Considering that at that time Serov was practically ignorant of Wagner's work, the conclusions which he draws do credit to his foresight and reflection.

As I am considering Serov as a composer rather than as a critic, I need not dwell at length upon this side of his work.

Yet it is almost impossible to avoid reference to that long and bitter conflict which he waged with one whom, in matters of Russian art and literature, I must regard as my master. The writings of Serov, valuable as they were half-a-century ago, because they set men thinking, have now all the weakness of purely subjective criticism. He was inconsistent in his moods, violent in his prejudices, and too often hasty in his judgments, and throughout the three weighty volumes which represent his collected works, there is no vestige of orderly method, nor of a reasoned philosophy of criticism. The novelty of his style, the prestige of his personality, and perhaps we must add the deep ignorance of the public he addressed, lent a kind of sacrosanct authority to his utterances. But, like all sacerdotal divulgations, they did not always tend to enlightenment and liberty of conscience. With one hand, Serov pointed to the great musical awakening in Western Europe; with the other, he sought persistently to blind men's eyes to the important movement that was taking place around them. In 1898, Serov returned from a visit to Germany literally hypnotized by Wagner. To quote his own words: "I am now Wagner mad. I play him, study him, read of him, talk of him, write about him, and preach his doctrines. I would suffer at the stake to be his speech." In this exalted frame of mind he returned to a musical world of which Rubinstein and Balakirev were the poles; which revolved on the axis of nationality. In this working, practical world, busy with the realization of its own ideals and the solution of its own problems, there was, as yet, no place for Wagnerism. And well it has proved for the development of music in Europe that the Russians chose, at that time, to keep to the high road of musical progress with Liszt and Balakirev, rather than make a rush for the unknown of Wagnerism. Serov had exaggerated the old order of critics by his justifiable attacks on their sloth and ignorance, had shown an ungenerous depreciation of Balakirev and his school, and adopted a very lukewarm attitude towards Rubinstein and the newly-established Musical Society. Consequently, he found himself now in an isolated position. Irritated by a sense of being sent to Coventry, he attacked with extravagant temper the friend of years in whom, as the champion of nationality, he imagined a new enemy. The long polemic waged between Serov and Stasov is sometimes amusing, and always instructive; but on the whole I should not recommend it as light literature. Serov goes on with bludgeon and iron-headed mace; Stasov retaliation with a two-edged sword. The combatants are not unfairly matched, but Stasov's broader culture keeps him better armed at all points, and he represents, to my mind, the nobler cause. The

war has never quite ceased to smoulder, and break out afresh, although it has long since been practically decided in favour of the nationalists.

When Serov the critic felt his hold on the musical world growing slacker, Serov the composer determined to make one desperate effort to recover his waning influence. He was now over forty years of age, and the great dream of his life—the creation of an opera—was well unattained. Having acquired the libretto of "Judith," he threw himself into the work of composition with an energy born of desperation. There is something fine in the spectacle of this man, who had no longer the confidence and elasticity of youth, carrying his smattering wounds-out of the literary arena, and replying to the taunts of his enemies, "show us something better than we have done," with the significant words "wait and see." Serov, with his extravagance and cock-sureness of opinion, has never been a sympathetic character to me; but I admire him at this juncture. At first, the mere technical difficulties of composition threatened to overwhelm him. The things which should have been learned at twenty were hard to acquire in middle-life. But with almost superhuman energy and perseverance he conquered his difficulties one by one, and in the spring of 1880, the opera was completed.

Serov had many influential friends in aristocratic circles, notably the Grand Duchess Helena Pavlovna, who remained his generous patroness to the last. On this occasion, thanks to the good offices of Count Adalberg, he had met, like so many of his compatriots, to wait an indefinite period before seeing his opera mounted. In March, 1885, Wagner visited Petersburg, and Serov submitted to him the score of "Judith." Wagner was specially pleased with the orchestration, in which he cannot have failed to see the reflection of his own influence. The general style of "Judith" recalls that of "Tannhäuser" or "Lohengrin"; but, here and there, are some curious and inconsistent reminiscences of Meyerbeer. As regards picturesque effect "Judith" is admirable, though the dramatic colouring is somewhat coarse and flashy. Serov excels in showy scenic effects, but we miss the careful attention to detail, and the delicate handling characteristic of Glinka's work, qualities which are carried almost to a fault in some of Rimsky-Korsakov's operas. But the defects which are visible to the thoughtful critic, seemed virtues to the Russian public. "Judith" enjoyed a great popular success, rivaling even that of a "Life for the Tsar." The mounting, too, was on a scale of magnificence hitherto unknown in the production of national opera. The subject of "Judith and Holofernes" is well adapted to Serov's opulent and sensational manner. The scene is the Assyrian camp where Holofernes is depicted surrounded by all the pomp and luxury of an

Oriental court, is considered one of the best numbers in the opera. The chorus and dances of the eblisques are full of the language of eastern sentiment. The "March of Hérofenes," the idea of which is probably borrowed from Glinka's "March of Chernomor" in "Ruslan and Lyudmila" is also exceedingly effective. For, whatever we may think of the quality of that inspiration which for over twenty years refused to yield material for the making of an opera, there can be no doubt that Scriov acquired from the study of Wagner a remarkable power of effective orchestration. Altogether, when we consider the circumstances under which it was produced, we can only be surprised how little "Judith" smacks of the lamp. We can hardly doubt that the work possessed intrinsic charms and virtues, apart from mere external glitter, when we see how it fascinated, not only the general public, but many of the young musical generation, of whom Tchaikovsky was one. Although in later years no one saw more clearly the defects and melodrama of Scriov's style, he always spoke of "Judith" as one of his "first loves" in music.

If "Judith" had remained the solitary and belated offspring of Scriov's slow maturity, I am not sure that his reputation would have suffered. But there is no age at which a naturally vain man cannot be intoxicated by the flames of increase offered in indiscriminate quantities. The extraordinary popular success of "Judith" showed Scriov the short cut to fame. The autumn of the same year which witnessed its production, saw him hard at work upon a second opera. The subject of "Rogneda" is taken from an ancient Russian legend of the time of Vladimir "Czar-Sun," at the moment of conflict between Christianity and the old Slavonic paganism. "Rogneda" was not written to a ready-made libretto, but, in Scriov's own words, to a text adapted piecemeal "to the necessary musical situations." It was completed and mounted in the autumn of 1865. We shall look in vain in "Rogneda" for the higher purpose, the effort at psychological delineation, the comparative solidity of workmanship, which are features of "Judith." Nevertheless, the work amply fulfilled its intention: to take the public taste by storm. I have never heard "Rogneda," therefore I prefer to quote the opinion of a much greater authority, that of Tchaikovsky himself. Speaking of this work, he says: "The continued success of 'Rogneda,' and the firm place it holds in the Russian repertory, is due not so much to its intrinsic beauty as to the subtle calculation of effects which guided its composer. . . . The public of all nations are not particularly exacting in the matter of aesthetics: they delight in sensational effects and violent contrasts, and are quite indifferent to deep and original works of art if the *mise-en-scène*

is not highly coloured, showy, and brilliant. Serov knew how to catch the crowd; and if his opera suffers from poverty of melodic inspiration, want of organic sequence, weak recitatives and declamation, and from harmony and instrumentation which are crude and merely decorative in effect—yet what sensational effects the composer succeeds in piling up! Mummies, who are turned into geese and bears; real horses and dogs, the touching episode of *Rusalka's* death, the *Prince's* dream made actually visible to our eyes; the Chinese gongs made all too audible to our ears, all this—the outcome of a recognised poverty of inspiration—literally crackles with startling effects. Serov, as I have said, had only a mediocre gift, united to great experience, remarkable intellect, and extensive erudition; therefore it is not surprising to find in ‘*Rusalka*’ numbers—rare oases in a desert—in which the music is excellent. As to those numbers which are special favourites with the public, as is so frequently the case their real value proves to be in inverse ratio to the success they have won.”

Some idea of the popularity of “*Rusalka*” may be gathered from the fact that tickets were subscribed for twenty representations in advance. This success was followed by a pause in Serov’s literary and musical activity. He could now meet his expenses in the gay, and poet triumphantly to the children of his imagination. Success, too, seems to have softened his hostility to the national school, for in 1886 he delivered some lectures before the Musical Society upon Glinka and Dargomyzsky, which are remarkable not only for clearness of exposition, but for fairness of judgment.

In 1887, Serov began to consider the production of a third opera, and selected one of Ostrovsky’s plays on which he founded a libretto entitled “*The Power of Evil*.” Two quotations from letters written about this time reveal his intention with regard to the new opera. “Ten years ago,” he says, “I wrote much about Wagner. Now it is time to act. To embody the Wagnerian theories in a strong-drama written in Russian, on a Russian subject.” And again: “In this work, besides observing as far as possible the principles of dramatic truth, I aim at keeping more closely than has yet been done to the forms of Russian popular music, as preserved unchanged in our folk-songs. It is clear that this demands a style which has nothing in common with the ordinary operatic forms, not even with my two former operas.” Here we have Serov’s programme very clearly put before us: the sowing of Wagnerian theories in Russian soil. But in order that the acclimatisation may be complete, he adopts the forms of the folk-songs. He is seeking, in fact, to fuse Glinka and Wagner, and produce a Russian music drama. Serov was a connoisseur of the Russian folk-songs, but he had

not that natural gift for assimilating the national spirit and breathing it back into the dry bones of musical form as Gluka did. In creating this Russo-Wagnerian work, Serov created something purely artificial, a hybrid, which could bring forth nothing in its turn. It is characteristic, too, of Serov that he regards this experiment of founding an opera upon the forms of the national music, as a purely original idea; ignoring the fact that Gluka, Dargomizsky, and Moussorgsky had all produced similar works, and that the two latter had undoubtedly written "music-dramas" which, though not strictly upon Wagnerian lines, were better suited to the genius of the nation.

Gutrovaly's play, upon which the "Power of Evil" is founded, is a strong and gloomy drama of domestic life. A merchant's young son abducts a girl from her parents, and has to atone by marrying her. He soon wearies of enforced matrimony, and begins to stray himself away from home. One day, while drinking in an inn, he sees a beautiful girl and falls desperately in love with her. The neglected wife discovers her husband's infidelity, and murders him in a jealous frenzy. The story is rather sordid, and does not sound very suitable for musical treatment, but the action of the play takes place at Carnival time, which gives occasion for several lively scenes from national life. The work never attained the same degree of popularity as "Judith" and "Rogneda."

Serov died rather suddenly of heart disease, in January, 1891. The orchestration of "The Power of Evil" was completed by one of his most talented disciples, Soloviev.

In one of his latest musical articles, Stasov, after the lapse of thirty years, writes of Serov as follows: "A fanatical admirer of Meyerbeer, he nevertheless caught up all the superficial characteristics of Wagner, from whom he derived his taste for marches, processions, festivals, every sort of 'pomp and circumstance,' every kind of external decoration. But the inner world, the spiritual world, he ignored and never entered; it interested him too little. The individualities of his dramatic *personæ* were completely overlooked. They are mere marionettes." Two more quotations throw an interesting light on Serov. The first is a confession of his musical tastes, written not long before his death: "After Beethoven and Weber, I like Mendelssohn fairly well; I love Meyerbeer; I adore Chopin; I detest Schumann and all his disciples. I am fond of Liszt, with numerous exceptions, and I worship Wagner, especially in his latest works, which I regard as the *acmé* of the symphonic form to which Beethoven led up."

The second quotation is Wagner's tribute to the personality of his disciple: "For me, Serov is not dead; for me, he still

lives actually and palpably. Such as he was to me, such he remains and ever will—the noblest and highest-minded of men. His gentleness of soul, his purity of feeling, his serenity, his mind which reflected all these qualities, made the friendship which he cherished for me one of the gladdest gifts of my life."

With these three points of view I must conclude my account of this interesting personality.

In the course of the paper the following illustrations were kindly sung by Mrs. Henry J. Wood:—

1. *Olga's ballad* from "*Rossenika*."
2. *Ballad in style of folk-song* from "*Rossenika*."
3. *Marta's kotura* (telling air) from "*Khovantshina*."
4. "*Varangian Song*" from "*Rogneda*."

DISCUSSION.

THE CHAIRMAN.—I am sure you will agree with me that an unusually cordial and warm vote of thanks is due to Mrs. Newmarch, for this really intellectual treat that she has supplied us with in her most informing paper. I do not know whether all of you are desirous of adding to the information, and discussing the various points we have had brought before us, but I think, on the whole, it would be well for us to reiterate before expressing ourselves.

I have therefore only to call on you to give a hearty vote of thanks, not only to Mrs. Newmarch, but to Mrs. Henry J. Wood.

This was carried unanimously.

MARCH 21, 1910

DR. W. H. CUMMINGS,
VICE-PRESIDENT,
IN THE CHAIR.

SULLIVAN AS A NATIONAL STYLE-BUILDER.

By CHARLES MACLEAN, M.A., Mus. Doc., OXFORD.

THIS is rather a discourse than a lecture, and is given at very short notice to meet an unexpected vacancy.

I propose to describe the 3 periods into which Sullivan's career as a composer may be divided, and to show the points in each wherein he contributed towards forming an English national school. Previously however it is necessary to give an introduction, and make some definitions.

NATIONAL STYLE.—To begin with, the term "national style" may be in itself a stone of stumbling to some. A wave of discussion passed through musical literature not long since, when one writer at any rate said that the idea of national style in art-music was a fallacy and that such music was cosmopolitan. Well, on the one hand the reasons for such a view being propounded in England are not far to seek, and on the other hand the facts are opposed to the maintenance of that theory. England's insularity in music throughout a large portion of the Victorian period caused limited notions to prevail as to what was going on in Europe generally, while the English serious and conservative habit of thought lent itself very readily to the process of drawing a ring round certain important composers to the exclusion of everyone else. If this way of looking at things was not limited to England, it was certainly more tenaciously held to here than in any other country. The composers in question (almost exclusively German) were regarded as "classical"; while the music of everyone else was treated as something out of the pale. In fact at any the mid-nineteenth century there was a complete obsession in England of the Teutonic style; so that for instance a sonatina of Schubert would be regarded as "classical," while an important opera of Bellini or Auber would be regarded as music of an inferior type. This unscientific not to say absurd classification, dictated by the prestige of a single school, has left

traces on our habits of thought even down to the present day, and has obscured a much truer and more natural classification, viz., that by nationality. However, to pass from retrospect to current observation of actual facts, the present state of music in Europe does not warrant the idea that the composers of different countries are tending to merge themselves in a general eclectic and cosmopolitan style; on the contrary the best composers in each country seem to be clearly differentiating themselves in obedience to some law of national characteristics. Our member F. Gilbert Webb, lecturing three days ago before the London Branch of the Incorporated Society of Musicians, turned some very happy phrases to express the different national musical styles of the present day. I will not emulate them. I will merely point by name to Russia, Poland, South Italy, North Italy, Switzerland, Spain, France, Belgium, Scandinavia, and ask whether any one can mistake the style of one for the other? In German-speaking countries themselves there are different styles, as of Austria, Bohemia, Bavaria, North Germany. The fact is that not only have there been in the past these musical differences, and only do they lie always scattered here and there geographically in time or in place, but that, as just said, the present moment even seems to betray more and more explicit differentiation. The phenomena are probably an aftermath of the political changes which took place in Europe in the first half of the 19th century. As to England, she has been slow, no doubt, to obey this impulse, but it only needs to cast a sympathetic regard on recent or present movements to see that under the guidance of her best composers she has eventually obeyed it. I might say, she has been learning to hatch her own eggs, in lieu of the cuckoo eggs of a foreign style or styles. If I labour this matter, it is because there are certainly those who look at it from another point of view, and expect in music something in the way of a *Volapük* or universal language. I think myself it will be very long before anything of that sort happens.

THE COMPOSER'S PROBLEM.—Granting as much however, the question arises as to what is the problem in this connection before the individual composer, and what are the conditions under which he consciously or unconsciously helps to build up the national musical style of his country. The answer is, that he must first have original power within himself, and secondly have national underlying and half-declared musical traits or propensities as raw material to work upon.

About the former there will be little difference of opinion. A composer is himself perfectly aware when he is producing original work, and when he is a mere funnel through which

is poured the contemporaneous music-style of his day; and he knows that the former work alone has any efficacy in the long run. The musical connoisseur also, looking at music from outside, tacitly acknowledges the same thing, that originality is the one final ingredient necessary to complete a composer's claim and make it worthy of serious notice. The general public certainly are not able to appreciate this quality on the spur of the moment, but it is equally true that no music ever enjoys public favour for long unless it possesses original qualities. It is always comforting to lean on a philosopher, and I may here quote John Stuart Mill. No one will accuse him of whimsicality or excess of sentiment. Indeed D'Israeli's jest was that he was a "political finishing goddess." But his remark regarding originality is this: "There are but few persons in comparison with the whole of mankind, whose experiments, if adopted by others, would be likely to be any improvement on established practice; but these few are the salt of the earth." The poet Longfellow describes original genius as—

"The exploitation, the divine
Insanity of noble minds,
That never falters nor abates,
Till all that it begets it finds,
And what it cannot find, creates."

The second point, that of national musical underlying better-traits, constitutes a much more difficult subject. An Italian's spear alone could touch these, if they were to be categorized. Without attempting that, I will suggest a broad sketch-description of the matter in these terms:—The national crude-material in question consists of certain art-tendencies, in a small way evidenced in church music, but mostly evidenced in the natural and spontaneous short outpourings of the laity; such material not being copied (it need scarcely be said) by the composer, but still acting as a general mould to influence his musical thoughts; and this mould exhibiting signs to some extent even certain decided technical limitations.

SULLIVAN'S PASTORAL.—Now to apply these remarks to Sullivan. If I indulged just now in some length of remarks as to the nature of original creative power, I need not waste time over demonstrating that Sullivan possessed it. To begin with, a man does not turn out melodies of the sort that he did for 30 or 40 years without possessing it. I appeal to common sense about this and pass on. But as to that question of the national raw material upon which he gradually developed his original powers, that is the crux, and it is also the centre point of this discourse. Sullivan was brought up, like all other English musicians of his time, on the

Teutonic basic material which I mentioned above. Outside the church, nothing else was taken account of, at any rate for serious purposes. As soon as he came to adult age Sullivan began to break away from this and substitute a style of his own founded on English basic material. He spent the whole of his mature life in confirming that style. What then was the difference between Teutonic and English?

GERMAN AND ENGLISH NATIONAL COMPARISONS.—The rationale of the former is almost exclusively that of the German *Volkstied*. Ever since the monodic style in music made its first effectual inroads upon the purely contrapuntal style, the national art-style of each country has more and more been determined in the last resort by the character of its folksongs. One might take a number of examples, as for instance in Russia, where short phrases, very free rhythms, a tendency to Lydian and Dorian scales of melody, and generally an absence of the tonality feeling which we at the present day are disposed to regard as so indispensable, have been transferred from the folksongs to the art-products. But it is enough to deal with the case in hand, to consider the *Colonus* which has stood from the Rhine to the Danube. The German *Volkstied* (which includes love-songs, patriotic songs, students' songs, and soldiers' songs) originated in the 14th century, came to its zenith in the 15th and 16th centuries, declined under the influence of the 30-years' war, was revived in the 18th century, and is still persistent. It rivaled the Gregorian chant, it went to school with and was modelled by the congregational hymns of the Catholic and Protestant churches. Above all, the natural capacity of the Germans for singing in parts governed its growth. It has always consisted of *tenors* (*Hörn*) and *antiphones* (*Ant-Hörn*); the former generally moving harmonically to dominant, less frequently to subdominant or relative minor. This, in combination with the simple and tripartite principles as accessories (for which subject generally I might perhaps refer to my paper of 9th June, 1895, before this Association), is the basic material out of which the whole of the great modern Teutonic art has been knued. So far has this been carried, that in Brahms, the last of the great German masters, the use of the set forms has been extended even to all choral and vocal works, most of which had hitherto been thought exempt. No doubt Wagner, and the lesser emotionally-led writers after him, have got as far away from such forms as they could. But even they would probably allow that historically and philosophically these were the foundation of their art. And at any rate these outgrowths were almost unknown in England when Sullivan was brought up, and of "classical music" the scaffolding was evidently what I have said above. I may add by-the-by that the

Dutch Musical Association (*Vereniging voor Noord-Nederlands Muziekgeschiedenis*), which like ourselves is in connection with the International Musical Society, has offered a prize through that Society for the best essay on arranging Volkslied material in dictionary-fashion, not according to the futile method of first lines of the words, but according to the melodic contents of the music, an extremely difficult and interesting subject.

The case on the other hand in England was not only not parallel with the above, but in a great measure antagonistic. Take here again the national airs of the Kingdom. They are not particularly easy to analyse. They were terribly hampered with in an earlier part of the 19th century; their distinctive modes (*Dorian, Mixolydian, and Aeolian*) were "majored" and "minored"; they were fitted with accompaniments having no affinity whatsoever to them, and just reflecting the harmonies taught in the thorough-bass hand-books of the period; even their rhythms were mingled and cut down to uniform 4-bar periods. Still, in spite of this unintelligent treatment and the chaos resulting, the case is clear enough to make certain broad statements as to our national bent in the way of music. The English love a simple sentiment, and particularly in the shape of ballads and hymn-tunes not having the German formal strength. Their national airs (not excluding Irish, Scottish, and Welsh) are constructed without the *tinge* and *aroma* of the Volkslied; and in so far as they betray any decided harmonic atmosphere, for they were not primarily adapted for singing in parts, they *lack* the tonic. During a considerable period, or in the Elizabethan era, the semi-national tunes composed by musicians showed a cross between an amorphic melody and a metrical air. This and nothing else would be the basic material (according to the principle I have propounded) which a Mendelssohn scholar, educated at Tensterden Street and in Leipzig, would have to look to as representing his own native country. It was wholly incongruous, almost incommensurable, with the dominant German style. If a single concrete example is wanted, let it be considered that the English popular song of the 19th century was brought up on such popular airs as "Pretty Polly Oliver," "Weed may the Kool row," "The Girl I've left behind me," "Heart of Oak," and "Rule, Britannia"; and however excellent these things may be in their way, they have not a particle in common with "*sonata-form*" or any other form of the Teutonic art.

NATURE OF SULLIVAN'S ACHIEVEMENT.—What I have to say then is that Sullivan, in "Englishing" his sometimes high and always elegant art (and the most superficial glance at his art-life will show that he did English it), executed a

task of extraordinary difficulty. It is only genius that attempts these tasks, or has any chance of carrying them through. And the more the matter is examined technically, the greater will be the admiration for what was accomplished in this case. It is to me somewhat strange that while Sullivan has received abundant recognition as a writer of agreeable and melodious music, no one has taken the trouble to regard him in his national bearings. That indeed is why I have undertaken this discourse to-day.

SULLIVAN'S ANCESTRY.—I will now, without further preface, proceed to consider Sullivan's art life.

HIS PEDIGREE AND EARLY BRINGING-UP.—I am able to give the missing some new information as to Sullivan's pedigree. He wrote it out for a lady called Mrs. Hurvill Holmes, who was good enough to send me a copy. It is this:—

(Masculine.)				(Feminine.)
Right	—	...	—	Firenze
Coghlan	—	...	—	Right
Coghlan	—	...	—	Phillips
Sullivan	—	...	—	Coghlan
Arthur Sullivan.				

The Coghlan and Sullivan are evidently Irish, the Right and Firenze are evidently Italian, and the Phillips (looking to the name) may not untruly be Jewish. I make this supposition because the Italian strain is evidently farther back than has generally been supposed and stated, while Sullivan's appearance was very Jewish when he was a young man.

He was born on 13th May 1842 at 8 Bolwell Terrace, Lambeth, the discovery of this birth-place having been made by our member F. G. Edwards. The father (an ex-soldier) was probably playing the bombardon in some theatre-band. In 1845 the father obtained the bandmastership of the small military band at Sandhurst, and the family moved out to York Town, Canterbury. There Sullivan played for his amusement the flute, the clarinet, and brass instruments; but not apparently any double-reed or stringed instrument. He was not taught music, and was only a quick boy hanging about the band-room at barracks. From the age of 3 to 12 he went to an ordinary school in Baywater, taking his holidays at Canterbury. On 10th April 1854 he obtained a choristership at the Chapel Royal St. James's, for his voice only. In 1856 the father obtained a teachership at the new Kneller Hall at Hounslow, and the family then came to live in Lupes Street,

Pieding. By that time Sullivan was 14 years old, and had had 2 years of the excellent general and musical education given at the Chapel Royal. In the same year 1856 he obtained the new Mendelssohn scholarship, first tying with Barnby who was 3 years his senior, and then beating him; Barnby was the eldest, Sullivan the youngest, of the 17 competitors.

THE FIVE COMPOSITION-PERIODS.—Here I should begin Sullivan's public career as a composer and divide it into 5 periods, as follows:—

- (a) 8 years, age 14—22, A.D. 1856—1863, a period of pupillage, with occasional compositions.
- (b) 7 years, age 22—28, A.D. 1863—1870, large works 10, and small works about 70, the most epoch-making period.
- (c) 13 years, age 29—42, A.D. 1871—1884, large works 18, small works about 60, the development of the operatic.
- (d) 7 years, age 43—50, A.D. 1885—1892, large works 20 and small works almost all, farther development in all branches.
- (e) 8 years, age 51—58, A.D. 1893—1900, large works 9 and small works 3 or 4, contented mastery till death.

First Period.—The trustees, husbanding their resources, left Sullivan at the Chapel Royal as long as the authorities would keep him there, sending him to classes and lessons at the Royal Academy, where he learnt pianoforte under O'Leary and Bennett, and harmony under Goss. This lasted 2 years, but in 1858, his voice having quite broken, he was sent on to Leipzig Conservatorium; where he learnt pianoforte under Fiedky and Moschles, and composition under Rietz and Hauptmann. There he stayed 4 years. His voluntary output as a student-composer was all this time very modest in amount. The following is a fairly complete list of what was written and performed:—

At Royal Academy:—

1857. C minor overture, "Times of Athens."
- " Fugue for chorus and orchestra, "Cum Sancto Spiritu."
1858. D minor overture.
- " Psalm, chorus and orchestra, German words.

At Leipzig:—

1859. A pianoforte sonata, songs, and part-songs.
- " String quartet.
1860. Overture, "Feast of Roses" (from *Lalla Rock*).
1861. Music to the "Tempest."

Sir Alexander Mackenzie in his lectures at the Royal Institution in May of last year said he had examined the early works prior to the "Tempest" and found no appearance of originality in them. I too have seen some of them, and should wish to second that opinion. Fortunately for Sullivan his talent was never forced, and indeed he lived among conservative surroundings. I would go a step further than Sir Alexander Mackenzie, and say that from the point of view of this discourse I find no originality worth mentioning in the "Tempest" music. The comparisons, which I have seen somewhere made, between the "Midsummer Night's Dream" overture and this music, are not reasonable. The former was a bolt from the blue, there was nothing like it in the world before, and no one could have suspected this outcome from the Bach style. But the "Tempest," though the work of a finished musician, and as such very striking to the English audiences, was uncommonly like all the other music then being turned out at Leipzig. As will be remembered, Sullivan came back to England in 1862 and made a sensation with an enlarged version of the "Tempest" at the Crystal Palace. He amply deserved his success; but he had not yet taken the first step in what constituted his own style. Just after this he went to Paris with Charles Dickens, and met Rossini. His appointment in 1863 as organist of Covent Garden under Costa, must have opened his eyes a good deal. He began writing songs for the publishers. His return to his own country brought him to the earning of the shyn.

SECOND PHASE.—Sullivan was now 22 years old. The works became too crowded for me to give lists, and I will narrate in abstract. In 1864 he wrote a Ballet for Covent Garden, and a "Sapphire Necklace" overture. In the same year he produced at the Birmingham Festival "Kathiworth," supposed to be a pageant before Queen Elizabeth. This gave him his lead, and the work was more English-like than anything since "May Queen" of 5 years before. It is delightfully fresh and rhythmic, is the dawn of Sullivan's nationality, and is far more important to us in England than the "Tempest." I do not know why it is so wholly neglected.

The chrysalis having thus burst, Sullivan went on from strength to strength. 1866 saw the E minor symphony, called "Irish," done at the Crystal Palace, London Philharmonic, and Leipzig Gewandhaus, entirely in his own style, and quite unnecessarily put aside. In the same year was "In Memoriam" overture at Norwich. This overture has much analogy with Wagner's "Forest Overture," a work of which Sullivan had as likely as not never heard, though written before he was born. In each case the roots-born is actually retained, but rather as a scaffolding for the exhibition of certain melodies entirely characteristic of the

composer, which appear competitively and without much cohesion in the situation of "end subject." The "1st subject," and especially with Sullivan, shows little development, and is not much more than necessary "business" for maintaining the consistency and a balance of matter. The end justifies the means in each case, and each is a masterpiece in its respective national style. In Wagner the "end subject" themes are just such as might appear in "Lobengrin"; in Sullivan they are simply Sullivanesque hymn-themes. In the Sullivan, the Introduction and Coda are an English hymn (not Chorus) played straight through. To score this juxtaposition may seem absurd. I believe it is true and natural. Each is a work of genius, each is written with consummate art, and each represents its own nationality; while, if anything, the English work is more liberated from precedent than the German.

In 1869 Sullivan confirmed his instrumental style by the "De Rollo" overture. On the other hand his oratorio the "Prodigal Son" at Worcester in the same year differed in no way from the Mendelssohnian style of the period; the musical method and mannerisms were the same, and the orchestral accompaniments were poor.

TURNED FRENCH.—In the previous September Sullivan had substituted for the German instrumental style his own, conceived in English vein. Now in this 13 years he wanted light opera from Italian and French influence, and reduced that also by the force of his genius to a national shape. At the same time he felt his way towards de-Germanizing the sacred or semi-sacred oratorio.

In 1871 Sullivan met W. S. Gilbert, English Civil Servant, barrister, militia captain, dramatist, librettist, sketch-caricaturist, all in one; and wholly unmusical. They became as Berke and Asher for the next 21 years. Hollingshead of the "Gaiety" commissioned from them "Thespis" or "The Gods grow old." It was not unlike the "Contrabandista" of 1869, but certainly distinct from the "Cox and Box" of 1868, most of which was pure Gluckiana. I remember being at the first performance of "Thespis," and it was a very quiet affair. It survives now only in the song "Maid of Arcader." Four years later in 1875 R. D'Oyley Costa, manager of Selma Dolare's Repalty Theatre, commissioned what became that splendid little trifle, "Trial by Jury," a shot on the law courts, especially with regard to the Tichbourne case. The vein which was running out in Vienna stopped up now, not in Italy where it might have been exported, but of all places in the world in foggy England. The music was so strong that from this point onwards the old London baritone intaricated demurely into "operetta" on one side, and "variety entertainment" on the other. The nail was clenched

in 1877 by the "Sorcerer," whereas Sullivan had got together all his English machinery and paraphernalia, including patter-songs. "Pinafore" in 1878 had an undeniably Bohemian quality, ran here for 2 years, and conquered America and Germany. It is curious to see the timidity of the press in praising this great success. The old "Kublan vocatina" fallacy (to quote myself) was still rampant. Sullivan was by this time frankly worshipped by the people at large; but, though there were no two actual camps proclaimed, no Delphi answering Dodona, nevertheless a considerable body of opinion among the cultivated classes harassed him with well-meant but ignorant suggestions that he was abusing his talents in the particular line in which he did most work. He said nothing, and set his back against the wall. But the stigma, which he was not strong-minded enough to despise, scorched him deep, and to the day of his death he never shook off a nervous Acute than engendered. Then followed the well-known record, the "Pirates" (broader than "Pinafore"), "Patience," "Iolanthe," "Princess Ida," and "Mikado" (which in 1885 was high-water mark).

A remark has been made in the published biography of Sullivan that the musical style of all the operettas is uniform, which shows a singular want of analysis or perception. There is nowhere to be found a clearer case of progressive musical development, especially from "Pinafore" onwards. During the whole of the 15 years he was wrestling with the Savoy style, to purge it from the dress incidental to an appeal to the masses, and to bring it into the domain of pure music.

Meanwhile Sullivan developed his powers elsewhere. In 1873, he wrote for Birmingham the oratorio "Light of the World"; an advance on "Prodigal Son," though much in the same style. In 1880, succeeding Costa as conductor at Leeds, he wrote the "Martyr of Antioch"; which seems and was too freedom, but which in point of fact was much better music than either of its predecessors. And in this last the German yoke was certainly almost wholly thrown off.

FOURTH PERIOD.—The next period was a septentrionism of still further development in each and every department. It began with that extraordinary work the "Golden Legend"; passed through important work like "Yeomen of the Guard," the "Marebeth" music (his finest overture), and the delightful "Comedians"; and ended with the great effort (a farce certainly from a national point of view) of "Ivanhoe." The half-oratorio half-cantata "Golden Legend," the new version of "Der arme Rittersch," has no vogue in Germany, because the long formless stretches are filled up with English and not with Teutonic sentiment. It was sketched by-the-by in Sullivan's former house at Sandhurst, where he took lodging. Time forbids a detailed analysis, but to a mind not

even-warped in favour of German art the whole will appear very beautiful; and one may say of it with Andrew Marvell,

"Then Music, the music of the air,
Did of all these a solemn noise prepare,
With which she gained the Empire of the ear,
Including all between the earth and sphere."

Technically it is a gorgeous production, and Sullivan handled the orchestra as he never did before. A well-known example is in the Introduction; the slow chromatic sequence of four-three's accompanied in turn by rushing chromatic sequences of other four-three's, the whole giving the surge of the tempest through the steeple. Of this by the way a learned critic said that the "*Golden Legend*" "opened with a chord of the 7th," a picturesque description truly. Another well-known example is where *Lucifer* offers the draught, analogous to without actually resembling the Flückwider in the "*Valhalla*." The "*Golden Legend*" finally drove Mendelssohnianism off the concert platform: it was root and stock an English product, yet written with all the profound musicianship of a Schumann. "*Ivanhoe*" was written when opera in English, beginning with Campbell's "*Arcturion*," was just too young. It was the immediate successor of such works as Cowen's "*Pastime*," George Thomas's "*Kingsrider*" and "*Nadeshda*," Stanford's "*Canterbury Pilgrims*," Mackenzie's "*Colomba*" and "*Troubadour*," or Corser's "*Nordica*." An English opera house was built for it in Cambridge Circus, and it had a very long run. It was just not strong enough to make an English operatic style. Sullivan would have been a miracle if he had built equally high in each department which he essayed.

Farra Faxon.—This included "*Haddon Hall*" (Grundy), "*Utopia*" (Gilbert), "*Grand Duke*" (Gilbert), "*Beauty Stone*" (Pisner), and "*Victoria Ballad*" for the Alhambra. Of these the first 3 were moderate successes; the "*Beauty Stone*," a serious play with a comic devil, was a dead failure. The question here was complicated by considerations about the librettists. Then at the end (1899) came what was practically Sullivan's swan-song, the "*Rose of Persia*" (Basil Hood), the best of the operettas.

Summary of Works.—Summing up the works, I consider that the main landmarks for purposes of this discourse are:—"*Kendworth*" (age 22), "*In Memoriam*" and the Symphony in E (23), overture "*De Bello*" (26), "*Mikado*" (33), "*Golden Legend*" (34), "*Macbeth*" music (36), "*Gondoliers*" (47), "*Ivanhoe*" (48), "*Rose of Persia*" (58). Sullivan achieved his task, and established his individual standard, in orchestral music, in secular cantata, in semi-sacred cantata, and in operetta.

I do not wish by-the-by to be misunderstood about "Mendelssohnism" mentioned just now. It would be impossible for me to speak of that master without reverence and admiration. But imitation of the master is another thing. This had during the first half of the Victorian era swept over England like a paralysis, and Sullivan, though beginning himself with Mendelssohnism,aved to be one of the earliest and most potent influences for undermining it.

CONCLUSION.—Finally I should like to say that these remarks are not made in the spirit of an essay, but express the convictions of a life-time. For nearly 30 years I have been watching Sullivan's career, and wondering when at any rate the philosophical segment of the English public were going to apprehend it in its true significance. Grove's article on Sullivan in the Dictionary is personally enthusiastic, and of course a model of cordial writing; but as regards any perception evinced as to relative styles or historic bearings it is a blank. The only broad view advanced is that Sullivan ought to create some "enduring monuments" of his mature powers in the forms of grand opera, symphony, or concerto; and that view appears to me a wrong one. Sullivan knew better than his admirers what was the proper canvas to work upon, and when and how to apply his powers. Surely there is no reason for farther delay in fitting Sullivan into his place in history, and one need not emulate the critic whose opinion on the first hearing of a new work is invariably that he wishes to hear it a second time. Sullivan was born into the world and grown to England, at a time of England's musical need, to show that works of the highest class in a variety of departments of strictly modern art can be written with strictly English materials. There are living composers who are doing other things in the same direction. I will not speak of them, for they are not my thesis. But I will venture on saying this much, that these will not contribute to the national building whose work consists of colour and cohesiveness imported from abroad, and that these will so contribute who present an artistic individuality having some affinity to the British character, and who pursue a consistent course in developing that individuality. Now this last was precisely what Sullivan did in the last third of the 19th century, having the additional advantage of being a natural melodist of a very rare order. I believe that Sullivan's influence with his existing works will be much more lasting than was supposed by those admirers who asked for more "enduring monuments." I believe that it will be very long indeed before these lovely tunes die, and I will conclude with two lines of quotation:—

"Still are thy pleasant voices, thy nightingales, awake;
For Death he taketh all away, but them he cannot take."

DISCUSSION.

THE CHAIRMAN.—I am sure you all, like myself, have been very much interested and I hope gratified by the remarks Dr. Maclean has kindly given us to-day. His generous estimate of Sullivan I think will find a warm echo in all our hearts. For myself, I was very much attached to Sullivan, and I am glad to hear someone stand forth and speak in the right and proper manner of his genius and what he accomplished. I do not quite follow Dr. Maclean in all that he has said. He talked in his introduction of originality, and rather laid it down as a rule that a great composer must be original. But it strikes me that in all the instances we have of great composers they have begun by being copyists. It certainly was so with Beethoven. He was great enough, but he began by being Mozart. In the same way Mozart himself began by being Haydn. So Rossini, who was a great man in his way, began writing operas on the plan of those of Mozart. I think this is inevitable, and it is really the proper course for a musician to take. I should be very sorry if any genius cropped up who began by being original, because I believe the result would be very unpleasant. Then I think Dr. Maclean in his reference to Bennett and the National style, in which he compared his work with what Sullivan did, rather seemed to imply that Sullivan took his style from Bennett. I think he has forgotten one little factor, and that is that Bennett was by no means chiefly a vocal composer. It is true he wrote the "*May Queen*," which is essentially English, and then, perhaps, differs somewhat from his ordinary vocal works; but there he had an English subject, and therefore, as a man of genius, he treated it with the proper colour; but I think if Sullivan had for his model any Englishman who went before him he would probably bear in mind the music he must have known so well—that of Sir Henry Bishop. Sir Henry Bishop in the early and middle part of his career had a manner of his own and none other; English, if you will—at any rate no copy of any foreign composer. Unfortunately in those days, as sometimes now, the foreigners were the most popular in England. Then Bishop set himself to copy Rossini and others, and so we find his later operas were frequently shadows or reflections of the works of foreign composers. But when he was writing "*Gay Mummering*"—take "*The Cough and Crow*," for instance, what could be more beautiful, more solid, more perfect? It is a copy of nothing whatever! So in his songs he was particularly English. I am sure Sullivan knew a good deal of Bishop's music, and

if there was any influence at all from other composers, it would have come from Bishop rather than from Bennett. Dr. Maclean asks why is not "Kendworth" performed? I think it is because the score and parts perished on that unfortunate Sunday when that great fire destroyed so much in the Crystal Palace. It was my good fortune to sing the principal tenor part of "Kendworth" at Birmingham, and I remember with the greatest delight the most beautiful duet to the words of Shakespeare's "How sweet the moonlight sleeps upon this bank!"—that was burnt also in the fire at the Crystal Palace—but Sullivan, I am glad to say, rewrites the score, and so the parts are to be had to this day; but I think the score and parts of the whole work are irreversibly lost. I do not quite agree with Dr. Maclean that Bennett was so Mendelssohnian or Tchaikowsky as is supposed. I find Bennett is Bennett and nobody else. He does not remind me of any other composer. I hear a great deal of music, and when I hear Bennett's music played I always recognise it as his. Of course you hear a great many people who say at once "Oh! is not it like Mendelssohn?" but I do not find it is anything but Bennett. I do not know why we should imagine that the English School, if ever it does come, should be suggestive of roast beef. What we want is not so much a school, as individuality in the composer. I think sometimes the school may become a little incense. Greatly as I admire Grieg, I think his style may sometimes be overdone. I should be sorry if all the Scandinavian composers were to adopt it, and be merely Grieg over and over again. Beethoven is to me only music; the music is just as much English as German or anything else. And that is where I think the cosmopolitanism of music comes in, though I know Dr. Maclean does not quite agree with me. I will not detain you, because I hope there are many who want to speak, and I think we should have a very interesting discussion.

MR. SCOTCHMAN.—I am sure we have all listened to this discourse of Dr. Maclean's with great delight. He has told us not only something about Sullivan's career, but has also given us a very excellent sketch of Nationality in Music, so far as popular and technical influences are concerned. And one must admit that the views which he has ably expressed on the subject are exceedingly true. There must be nationality in music. It is impossible to go into Italy, and then into Spain, and then, if you like, into Sweden, and Moldavia, and not feel the great difference there is in the music of different nations. I should be very sorry indeed were these distinctions to become obliterated, and every man of every nation write alike. Dr. Curran has truly said of Beethoven that he is of all the world—he speaks in accents all cultivated nations can understand and appreciate. May

I take two exceptions to the statements of Dr. Maclean? I understood him to say that Sullivan was brought up on Teutonic material. Now this is hardly correct. If we look at his career we see that his first bringing-up was at the Chapel Royal, the nursery of so many of our great English musicians. He composed music there; and I believe Dr. Cummings has a boyish anthem of Sullivan's in his possession which was written there. He was also a pupil of Sir John Goss at the Royal Academy of Music, and I think this had far more to do with his career than any Teutonic influences under which he came during his subsequent stay at Leipzig. In the case of "*Ivanhoe*," which many persons affect to sneer at as not a success, one is led to wonder what is the scale by which success is measured! Some of you may remember that "*Ivanhoe*" was very favourably received by the critics and the public, and that it had a run of 100 nights. That it did not lead to anything fresh in that style is to be regretted; but I certainly put the opera itself down as a success. In the little sketch Dr. Maclean gave us he did not say much about one particular phase of Sullivan's music, which, if I do not err, is likely to endure longer than any other; I mean his Church music, cantatas, anthems, services, and hymn-tunes. The deeply devotional music Sullivan wrote showed he was a true descendant of the great school of English Church composers, whose strains he had drunk in at the Chapel Royal, and also when sitting at the feet of the notable organist of St. Paul's Cathedral, Sir John Goss. One catches echoes of this in his beautiful part-song, *Even in the "Mikado"* you will see traces; I have in mind the little madrigal contained in that work. In his later years, though there may be some secularism in the fine music he wrote in the "*Golden Legend*," and the "*Martyr of Antioch*," it is all unlike the production of any other country! There is one imposing and fine piece of church music which is too little heard—his "*Te Deum*." He wrote it, I believe, for an ordinary orchestra, and also for a military orchestra. It has been heard at the Crystal Palace, but seems to be rarely given in our churches. I think in a sketch of Sullivan's career we should not forget that he has composed some noble, truly religious church music. A word about Sir Stansfeld Bennett. It has been said he worked in the Teutonic mould. I am so glad to hear Dr. Cummings declare that when he hears Bennett, he feels it is Bennett and Bennett only. So do I. It is really different from Mendelssohn. True, the music of both these composers shows the refined, cultured man; but there is a grace, a delicacy, a feeling of nationality, a richness of harmony, a curious affection for the chord of the seventh in the music

of our countryman which seem to me to belong to Bennett alone. Remember, Bennett wrote some of his most original music before he went to Germany, and while at the Royal Academy of Music. What do you think of the "Paradise and Peri" overture? That is a highly emotional piece of music, far removed from Germanism, look at the touching effect due to the pealing of a little bell? I can trace nothing Teutonic in it, or in the delicious artless strains of the "Naiades" and "Wood Nymph" overtures, or even still less in that most charming pastoral "The May Queen." I am sure Dr. Maclean will pardon this reference to a point which he himself introduced in noticing the life-work of our notable recently deceased composer.

Dr. Maclean replied briefly. He had had his say about the "Teutonic mould," and would not weary either Chairman or audience in amplifying it. The Chapel Royal experience no doubt had its subsequent influence, but the object of the discourse had been to show not so much what Sullivan had in his favour, as what obstacles he had had to overcome.

APRIL 2, 1900

T. L. SOUTHGATE, Esq.,
IN THE CHAIR.

HAMLET AND THE RECORDER.

By CHRISTOPHER WELCH, M.A. Oxon.

THE Plays of Shakespeare have been handled by the naturalist, the botanist, the ornithologist, the astronomer, the psychologist, the typographer, the singer, the lawyer, the physician, and the divine, but never, as far as I can discover, by one who has brought to bear on them a study of the flute. Yet Shakespeare has honoured the flute as he has honoured no other instrument. In "Hamlet" he has brought it on the stage, displayed it to the audience, and discoursed on its music, its structure, and its manipulation. This afternoon I will break new ground: I will bring before you the views of a flute-player on the well-known Scene.¹ I shall suggest a change in the way of mounting it, express an opinion on how it might be played, and comment on the technical phrases it contains.

It is not necessary to dwell on the leading incidents of the Play. No one needs to be reminded that his father's spirit appeared to Hamlet, made known to him that he had been

by a brother's hand,
Of life, of crown, of queen, at once despatch'd,
and commanded him to
Revenge his foul and most unnatural murder.

The change that brought against Hamlet's uncle rested solely on the spectre's word; but the apparition, instead of being an "honest ghost," might, perchance, have been a "goblin damned," a fiend, who had assumed his father's shape to lure Hamlet on to crime. Hamlet, therefore, before kniving his hands in his uncle's blood, requires confirmatory evidence. For a test of the ghost's truthfulness, Shakespeare has recourse to his own art: Hamlet will have the murder, as the ghost had described it, acted before his uncle by some strolling players who have just arrived, whilst he and his friend Horatio will watch if in his visage he should betray his guilt.

Now, I have heard,
That guilty creatures, sitting at a play,
Have by the very cunning of the scene
Been struck so to the soul, that presently
They have proclaim'd their malfections;

¹ "Hamlet," Act III. Scene 2.

For murder, though it have no tongue, will speak
 With most miraculous organ. I'll have these players
 Play something like the murder of my father,
 Before mine uncle: I'll observe his looks;
 I'll tent him to the quick: if he do blush,
 I know my course. The spirit I have seen,
 May be a devil; and the devil hath power
 To assume a pleasing shape: yea, and, perhaps,
 Out of my weakness and my melancholy,
 (As he is very potent with such spirits),
 Abuses me to damn me: I'll have grounds
 More relative than this: The play's the thing
 Wherein I'll catch the conscience of the King.¹

The scene in which the histrionic touchstone is applied to the murderer is a dramatic conception of the highest order. The Player on the stage pouring poison into his sleeping victim's ear—Hamlet, mad with passion, but struggling to appear calm, his eyes riveted to his uncle's face as he lies at the feet of the gentle Ophelia—the guilty King, struck to the soul, calling for light and hurrying from the hall—form a spectacle never to be effaced from the beholder's memory.

The King, the Queen, the Court, the Players—all are gone. Hamlet, his doubts dispelled, his suspicions confirmed, is left alone with Horatio in the silent hall. His impetuous soul now longs for the solace of sweet sounds, Shakespeare's balm for the wounded spirit:² "Come," he exclaims,

"Come," *Hamlet*, "Act II., Scene 2.

¹ In "*Henry VIII.*" (Act III., Scene 2), Queen Katherine calls for music to dispel sadness:—

Take thy lute, wench; my soul groans and with toothless
 Tongue and fingerless, . . .

The song sung in obedience to the Queen's command, tells us that—

In sweet music is such art;
 Killing care, and grief of heart,
 Full asleep, or, sleeping, die.

Henry IV. (the Second Part of "King Henry IV.," Act IV., Scene 2), on awaking consciousness from a swoon caused by joy, expresses a wish for music:—

I pray you take me up and bear me hence
 Into some other chamber: softly, pray
 [They carry the King into an inner part of the room, and place him on a bed.]

Let there be no noise made, my gentle friends;
 Unless some dull and forgetful hand
 Will whisper music to my weary ears.

Harvard.—Call for the music in the other room.

Company "John Caste," Act IV., Scene 2, where Brutus, after great mental agitation, bids his boy to touch his instrument a strain or two.

Hamlet was subject to thoughts of suicide, the result of his soliloquy in which he alludes to the speech just quoted above, melancholia; an ailment for which, from the time of Eral, music has been looked upon as a remedy. In "*Parsifal*" (Act V., Scene 1), the "sacred playmate," singing, is resorted

"some music; come, the recorders. . . Come, some music." Music is so inseparably associated in many minds with mirth, that this sudden and seemingly ill-judged call for it is often regarded as a mad freak. But, if it be madness, it is not without method. Be it observed that Hamlet does not call for the shawms, for the cornets, or for the luteboys, although any finger-holed instrument would serve the purpose to which the flute is ultimately put. Nor does he call for a recorder. He calls for the recorders; for a band, or concert of recorders; for that combination, which, as Milton tells us, was not

. . . wanting power to anticipate and 'scape
With solemn touches troubled thoughts, and chase
Anguish, and doubt, and fear, and sorrow, and pain
From mortal or immortal minds;

for that form of instrumental harmony whose soothing sweetness, suggestive of the painless bliss of the blessed, could exalt the soul to ecstasy, and lay the specters of murder and revenge still stalking in the hall.

It is a state of darkness, or "a lonely prison," brought on by melancholia. In "The Tempest" (Act V., Scene 2), "solomon," or "holograph," again solemnity, be it remembered, next to sweetness, was the distinctive attribute of the recorder (it is used to relieve Trinculo) —

Prologue. — A solemn air and the best comforter
To an unquiet heart, once thy bedlam,
Now silent, but'd within thy skull!

[*Solomon music*]

Such was the belief of the immortal bard in the power of our art, that he has recourse to it, not only to help "madness to their wits," but even to bring the seeming dead to life. On the coffin, or chest, which contained the body of Thana, being opened (*"Prologue," Act III., Scene 2*), Geronimo, who had previously made known that he had "rocked physics," cries —

The rough and solid music that we have,
Came it to sound, 'bemoan you.
The viol once merry—flow thou after't, thou black I—
The meaner than—I pray you, give her air—
Geronimo,
This spirit will live, nature smokes, a warmth
Breathes out of her; she hath not been extinguisht
Above five hours—See, how she 'gins to blow
Till life's flower opens!

The success of the treatment, as might be expected, raises the reputation of Geronimo as a student of physics —

Final Goodman. — The heavens, too,
Through you, increase our wonder, and set up
Your name for ever.

See also "A Winter's Tale," Act V., Scene 3, and "King Lear," Act IV., Scene 3.

As I am writing for notation, I ought not to quit to add that there is a difference of opinion amongst critics on the meaning of the word *viol*, used by Geronimo. Malher thinks that a small bottle is meant; Dyce says that, judging from the context, the musical instrument of that name is intended. In the first, second, and third Quartos the word is spelt *viol*; in the fourth, fifth, and sixth, and the third Folio, *viol*; in the fourth Folio, *viol*; but no dependence can be placed on the spelling as a guide to the sense.

And here we should note that in the Quarto of 1609, 'the true and perfect copy' of the Play, the stage direction 'Enter the Players with Recorders' occupies a position slightly different from that assigned to it in modern editions of Shakespeare. Instead of coming immediately before Hamlet's words "O, the recorders, let me see one," it is placed a trifle earlier, following Rosencrantz's remark, "How can that be, when you have the voice of the King himself for your accession in Denmark?" It would seem, therefore, that the recorder-players should not wait until the very last moment available, as is now customary, but should come on the stage rather before they are required for the business of the scene. The sooner they appear, the more would they attract the attention of the audience. Could Shakespeare have intended them to be noticed? It is possible that he was aware of the unconscious influence they would exercise on those who saw them? On a modern audience, it is true, the sight of a band of recorder-players would produce no effect, except in so far as it would excite curiosity; but amongst those who were familiar with the solemn nature of their strains, their presence would as certainly diffuse a holy calm, as, in the present day, the appearance on the stage of a company of innocent Germans, with wind instruments in their hands, would cause a shudder to run through the house, even if they did not put their discordant wood and hideous brass to their lips.

WHO WERE THE RECORDER-PLAYERS?

At this stage of our inquiry a question presents itself. For what recorder-players did Hamlet call? Does the stage direction 'Enter the Players with Recorders' signify 'Enter the Actors furnished with Recorders,' or does it mean 'Enter the Recorder-players with their instruments'? Did Hamlet expect the Players, who had just been acting before the King, to re-appear as recorder-players, as seems generally to be taken for granted, or did he intend professional flute-players—such, for instance, as may have come with the Players in the capacity of musicians to the Company, or the recorder-players in the Danish Court Band* to be summoned to the hall?

Whether or not in Shakespeare's time it was expected of actors that they should, when called upon, undertake the duties of musicians, those conversant with the history of the stage may be able to say; but if, by the Players, Shakespeare meant the actors, the stage direction should be, not 'enter,' but "re-enter," the Players with Recorders. Of such importance is this point, that in some editions of Shakespeare 're-enter' is substituted for 'enter.'

There were no less than six recorder-players in the English Royal Household as late as the reign of Charles I.

THE RECORDER SCENE NOT ADEQUATELY REPRESENTED.

It would seem as if Shakespeare's design had never yet been realised on the stage. At the very first a bad example was set, there being reason for believing that when the great dramatist took the part of the Ghost in his own Play, no more regard was paid to his ideas than is in the present day. Shakespeare was a churchholder¹ in the Globe Playhouse. His friends, Heminge and Condell, the editors of the Folio of 1623, were not only his brother actors, they were fellow shareholders, whilst Burbage, who played the title part in "Hamlet," was the builder of the theatre. The shareholders, looking to the dividend, would be averse to incurring the expense of engaging a band of scoring recorder-players and furnishing them with instruments, real or pretended, when one musician only was required to hand the recorder to Hamlet. Whether this be or be not the true reason, the Play was brought into harmony with such views. In the Folio of 1623, the text of which is believed to be taken from the acting version of the Globe, the stage direction 'Enter the Players with Recorders' is altered into 'Enter one with a Recorder,' its position in the text changed from where Shakespeare put it, to the place it now occupies, and Hamlet's words, 'O the Recorders, let me see one,' converted into 'O the Recorder. Let me see'²

¹ There were sixteen shares. Shakespeare is known to have held at least two. His holding is said to have brought him in at one time more than five hundred a year. But the Globe had no "divers" as well as its "boys." When the boys from the Chapel Royal became so popular as actors at the Blackfriars Theatre, the receipts fell off to such an extent that the House was closed and the Company went on tour, various managers attached to it. "Hamlet." The passage relating to it is given in modern editions of Shakespeare ("Hamlet," Act II., Scene 2), although it is retained in the Quarto, but only in the Folio, the text of which was taken from the acting version of the Globe. Remembrance tells Hamlet that the boys appear as he calls the boys, have become the fellows, and says that they quarry off "Hercules and his load too," there being a figure of Hercules with a globe on his back at the Playhouse. Hamlet asks too as the question about the children.

The actors were not paid fixed salaries, they divided the takings with the shareholders, those actors who were the chief attractions having, of course, in the double capacity. The shareholder took half of the gross receipts, out of which they paid certain employees known as *lingings*. As the recorder-players would have been governed by *lingings* (unless the score appeared as manuscript), the expense of engaging them, as well as the cost of their costumes and instruments, would not have fallen on the actors, but on the shareholders.

² See below Note 12 where the passage is quoted as it appears in the Folio. Referring to the substitution of a recorder for "the recorder" Dyce says that it is an alteration which he has not the slightest doubt we must ascribe to the "company," who, he maintains were obliged to be economical both of persons and property. A single recorder, he adds, suffices for the business of the scene; but the alteration is in quite an opposite way what precedes, "Come, come, record, come, the Recorder."

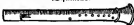


FIG. 3.—THE CHURCH RECORDERS.

A FLUTE-PLAYER'S VIEW OF THE RECORDER SCENE.

If the Recorder Scene were carried out according to what seems to a flute-player to be Shakespeare's intention, it would be conducted as follows. At least four recorder-players—a discant, an alto, a tenor, and a bass—would come upon the stage. The semblance of the instruments they carry in their hands would vary in length, the longest being, roughly speaking, rather less than four, the shortest, than two, feet long. The exact length of the Chester flutes (Fig. 1) is as

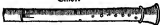
Discant. Alto.
 Discantus.



Alto.



Tenor.



Bass.

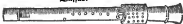


FIG. 1.—Recorder after Aristotle.

follows: of the discant 3ft. 5in.; the alto 2ft.; the tenor 1ft. 6in.; the bass 1ft. 6in.

Although the Chester flutes might be taken as a guide for length, their shape would not be copied. They are made in joints, whereas there is reason for believing that in Shakespeare's time the recorder was in one piece only. An earlier form would therefore be chosen as a model. If the instruments figured by Praetorius¹ were made fifteen or twenty

¹ Praetorius gives a representation not only of the recorders in use in his time, but of the whole lute-like family, from the lute flutes, an instrument with only four holes, down to the double bass recorder. His drawing of them is reproduced in the writer's Paper on 'Literature relating to the Recorder,' *Proceedings of the Musical Association*, 1897-98, p. 175.

years before his work was published (if not), they would be about contemporaneous with the production of "*Hamlet*" (1600). Should a still earlier form be preferred, the drawings given by Agricola (1538), Fig. 9, or Virdung (1531), Fig. 3, might be followed. It is needless to say that, in any case, even the discent would be so thick as to make Hamlet pause, unless he were a Milo, before he attempted to snap it like a twig.

I have here a recorder which has been kindly lent to me by Messrs. Rudall, Carter & Co. (Fig. 4). It was probably made early in the seventeenth century, and so would give an idea of the sort of instrument which would be handed to Hamlet. In shape it resembles the flute in the *Synagoga* of *Periclitus*. It is four inches and three-quarters longer than the Chester discent, a consequence of it being in the key of C instead of F, its lowest note being C natural. In a net like that at Chester, it would form the tenor, the longest



FIG. 3. RECORDER AFTER VIRDUNG.

instrument but one. The wood of which it is made is polished, its colour being light brown. I should call your attention to a peculiarity in its construction, which, of course, would not be copied. The mouth, or *lamina*, instead of being on the upper aspect of the instrument with the finger holes, lies below on the same side as the thumb-hole. Although European *Apollon-flutes* are not usually thus made, there are Asiatic flutes in which the mouth is so placed, as, for instance, the Silesian instruments figured in my former Paper on the recorder.*

As I am addressing musicians, I may mention, parenthetically, that on comparing this recorder with an harmonium used by Messrs. Rudall for tuning clarinets, flutes, and other instruments sent out at the Kaefer Hall, or, as it was formerly called, the English Concert pitch—the pitch in general use in English orchestras before the

**Proceedings of the Musical Association*, 1877-78, p. 215.



FIG. 4.—RECORDER SUPPLIED TO MISS M. KEMAL, CARTE & Co.

introduction of the so-called *diapason normal*—the recorder and the harmonium were found to be as exactly in unison as if they had been tuned together. The Chamber flutes, which are, probably, a century later than this recorder, were stated by Dr. Bridge, when they were played in this room, to be at the same pitch.⁷ And yet this pitch was called Costa's pitch, and we used to be told by its opponents that it originated at Covent Garden Theatre in the forties of the nineteenth century.⁸

Although there would on no account be less than four recorder players, if it were desired, a larger number might appear. In the collection belonging to Henry VIII. there were three sets of four, two of six, one of seven, three of eight, and two of nine recorders;⁹ the Hengrave case contained seven; early in the seventeenth century, according to Praetorius, a full flute band comprised twenty-one instruments, including a double-bass flute at least seven or eight feet long, and there is reason for believing, as I have shown, that as many as thirty or forty Apple-flutes were sometimes played together.¹⁰

The flute-players would not wait so long before coming on the stage as to make it necessary for them to run, or hurry in an unsightly way. They would have entered, and might be in the act of grouping themselves for a performance on a spot whence they and their instruments could be well seen by the audience, when Hamlet, perceiving them, would exclaim, "O, the recorders, let me see one." Thereupon the first player would advance and offer his flute, then retire and rejoin his comrades. He would present the head of the recorder to Hamlet, with the finger holes uppermost, as represented in Fig. 5, this being the proper and polite way of handing a flute. Hamlet would grasp it between the mouth and the first finger hole, as shown in Fig. 6, and so when he says, "Look you, these are the stops," some of the holes would be covered with his hand. Having taken the recorder, Hamlet would turn to Rosenkrantz and Guildenstern and say, "to withdraw with you," at the same time stepping aside, followed by the courtiers, out of earshot of the musicians, he being too well-bred to rebuke his fellow students in their hearing. The flute-players would not quit

⁷ Proceedings of the Musical Association, 1900-1901, p. 277.

⁸ The story that the English pitch was raised by Sir Michael Costa with the approval, if not at the suggestion, of Marco, Gross, Porciani, Alfani, and the other great singers who joined him, when he left Her Majesty's for Covent Garden in 1847, is purely apocryphal. Sir Michael in a letter to me dated December 14, 1881, writes: "When I concluded at Her Majesty's Theatre, at the Philharmonic Concerts, and at Covent Garden Theatre, I had the same band and consequently the same pitch."

⁹ Proceedings of the Musical Association, 1897-98, p. 215.

¹⁰ *Ibid.*, p. 279.

the stage at this juncture; they would curdle until Hamlet, wishing to be alone, says, "leave me, friends." Hamlet would either return the recorder to the musician on the entrance of Polonius, or retain it until the players, with Horatio, Rosencrantz and Guildenstern, are about to retire. Throughout the scene Hamlet would carefully refrain from loud speaking, or showing excitement. Not anger, but scorn, expressed in the form of contemptuous laughter, is the passion indicated, Hamlet's object being to prove to Rosencrantz and Guildenstern that he can delve below their names, not to scold or abuse them. Once, but once only, would he raise his



FIG. 2.—HOW THE RECORDER WOULD BE HANDLED TO HAMLET.



FIG. 3.—HOW HAMLET WOULD TAKE THE RECORDER.

voice, that being when he utters the words, "Sh'lood, do you think I am easier to be played on than a pipe?" but he would instantly drop it for the final sentence, "Call me what instrument you will, though you can feel me, you cannot play upon me," which, though strongly emphasized, would be pronounced with perfect calmness and great deliberation.

AN OBJECTIONABLE PROCEEDING OF SOME HAMLETS.

An act is sometimes seen when "Hamlet" is played, which has only to be named to be condemned. I allude to the offering up of the recorder as a sacrifice to the gods in the gallery by snapping it asunder, and throwing the fragments on the stage. What can be pleaded in justification of the practice it is hard to say. Can madness, real or feigned, be an excuse for disfiguring by a display of unbridled passion a reproof couched in a form so often chosen by Him who spake

an ever man spake? Ought Hamlet, who has likened himself to the recorder, to demolish his own image? Is it right that, for the sake of a theatrical coup, Hamlet should be degraded from the gentleman of Shakespeare's creation into a petulant and destructive rowdy? To realize the excessity of the solution involved we have only to imagine (if the imagination would go so far) that when the Queen's private band was in the Drawing Room at Windsor Castle, the Prince of Wales, in his youth, had asked Richardson for his flute to illustrate a remark he was about to make, and, when he had done with it, had smashed it and thrown it away, instead of returning it to the owner. Such wanton violence, however appropriate it might be to the disposition of Richard III., accords ill with the sympathetic nature of the sensitive Hamlet. He would be the last to inflict a needless wound on the feelings of even the humblest of his fellow-subjects. To a musician, be it remembered, his instrument is a cherished object; in his hands it becomes a living being, able to express, and seeming to share, his joys and sorrows. The feeling of affection with which it is regarded, may, in a highly-wrought temperament, be heightened into a real passion. Thus Paganini, on seeing his viola taken to pieces for the purpose of repair, is said to have displayed the manifestations of acute suffering shown by the tender-hearted when witnessing a surgical operation on one they love.

THE ORIGINAL TEXT OF THE RECORDED SCENE.

But I have been anticipating. Presuming on your acquaintance with the details of Shakespeare's masterpiece, I have not thought it necessary to remind you that no sooner has Hamlet called for the recorder than his college friends, Rosencrantz and Guildenstern, make their appearance. They have become the servile emissaries of the King, and have undertaken to endeavour to extract from Hamlet the secret of his strange behaviour, the seeming sign he had shown of a disordered brain. Puffed on a former occasion in their attempts to catch him in his talk, they now ask him point blank what is the cause of his distemper. To convince them of the futility of attempting to extort from him a confession, he has recourse to allegory, and represents himself as a flute,¹² on which he invites his fellow-students to play. I will now

¹² The figure is a favourite with Shakespeare; he had already used it in "*Hamlet*," in the early part of the same scene:—

Meet me there,
Whose blood and judgment are so well-combled
That they are not a *flute* for Fortune's finger
To sound what stop she please . . .

In the induction to the Second Part of "*King Henry IV.*" the metaphor is still further developed. The Duke is there personified as *Humour*, who comes on the stage, "*painted full of tongues,*" and declares himself to be a

give you the text of the famous passage, which has been called the Parable of the Recorder. I will quote it as it appears in the Quarto of 1604, that being the form in which, making allowance for printers' errors, it may be supposed to have left Shakespeare's pen.

Enter the Players with Recorder.

Ham.—I see, but while the grass grows, the pomegranate is some thing musty, & the Recorder, let me see one, to withdraw with you, why dost thou goe about to recover the wind of mee, as if you would drive me into a toyle?¹⁴

Clay.—O my lord, if my duty be too bold, my love is too wantonly.¹⁵

Ham.—I do not well understand that, will you play upon this pipe?

Clay.—My lord I cannot.

Ham.—I pray you

Clay.—Believe me I cannot.

Ham.—I doe beseech you,

upon which "the multitude" can play. The passage is climbed in highly-wrought imagery:—

Recorder (sq.)—I, from the infant to the drooping vean,
 Making the wind my post-horne, still unfold
 The tale commenced on the hill of earth.
 Upon my tongue continual chadders ride;
 The which in every language I pronounce,
 Scuffling the eare of man with false reports.
 I speak of peace, while covert stealing,
 Under the smile of safety, wounds the world:
 And who but Recorder, who but only I,
 Make fearful murther, and prepar'd defence;
 Whiles the big year, with's with some other greed,
 Is thought with shills by the stars tyed was,
 And no such matter? Recorder is a jife
 Shown by murther, jealousy, importunes;
 And of an eye and in place a stick,
 That by their master with unwept hands,
 The still-disordered wavering multitude,
 Can play upon it. But what shall I than
 My well-known body to anatomy
 Among my household?

¹⁴ Of the different explanations which have been proposed of the obscure phrase "to recover the wind of me," that which has more firmly taken root is that the expression refers to the way in which *Demetrius* and other hunters endeavor to get near to their prey by sneezing against the wind, so that the animal may not detect their approach by its sense of smell. It has never been suggested that in "to recover the wind" there is an allusion to the word *recorder*; Hamlet has just taken "into his hand," or that the words have any reference to music.

¹⁵ None of the explanations offered of *Claydon*'s speech, "if my duty be too bold, my love is too wantonly," is very satisfactory. *Claydon* surely remarks that as Hamlet did not well understand it, commentators may be excused from attempting to explain it.

Garl.—I know no touch of it my Lord.

Ham.—It is as easie as lying; govern these ventages with your fingers, & the writer,² give it breath with your mouth, & it will discourse most eloquent musicke, looke you, these are the stops

Garl. (sh).—But these cannot I command to any vtirance of harmonye, I haue not the skill.³

Ham.—Why looke you now how vawcontry a thing you make of me, you would play vpon me, you would seque to know my stops, you would plucke out the heart of my mystery, you would sound mee from my lowest note to⁴ my compass

² The earlier 'u' is printer's error. Shakespeare, we may feel sure, intended to write 'thumb,' which he might have spelt 'thumbe.' Possibly, in the manuscript from which the Quarto of 1608 was printed, the 'th' might have been separated from the 'u,' and a flourish of some kind made after the 'u.' However this may be, the compositor inserted an 'e' after the 'th,' and added an 'u' after the 'e' at the end of the word, thus converting 'thumb' into 'the umber.' The mistake was corrected in the Quarto of 1609, but in the Quarto of 1616 an attempt was made to set the text right; but the way in which the error originated not being perceived, 'the umber' was altered into 'the thumb,' instead of, as it should have been, into 'thumb.' In the next Quarto, which bears no date, we still find 'the thumb.' Even when the last Quarto, that of 1616, was prepared for the press, the cause of the misprint was not recognized, but a change was made in the spelling, 'the thumb' becoming 'the thumbe.'

The Folio of 1623 gives 'thumb' quite correctly without the 'the.' But here another mistake is made; 'finger' is converted into 'finger,' a blunder repeated in some modern editions of Shakespeare.

See the "Proceedings of the Musical Association" 1872-73, pp. 242-243, where the subject is discussed at greater length.

³ Here, in the Quarto of 1608, Hamlet addresses himself to Guildenstern only, but in the issue of 1609, the anonymous copy believed to be a paraphrase from memory or notes taken during the representation, he notices both of his fellow students: to play on the records, as will be seen from the following, which is the text of the issue in that edition:—

Ham.—I pray will you play vpon that pipe?

Guildenstern.—Alas my Lord I cannot.

Ham.—Pray will you

Guildenstern.—I haue no skill my Lord.

Ham.—Why looke, it is a thing of nothing,

It's but stopping of these holes,

And with a little breath from your lips,

It will giue most delicate musicke.

Gil.—But this cannot use be my Lord.

Ham.—Pray now, pray heidly, I beseech you.

Gil.—My Lord we cannot.

Ham.—Why how vawcontry a thing would you make of me?

You would seeme to know my stops, you would play vpon mee,

You would search the very inward part of my heart,

And thus into the secrets of my soule

Woulde do you thinke I am easie to be play'd

On, thus a pipe? Call mee what Instrument

You will, though you can hurt mee, yet you can not

Play vpon mee — — —

⁴ The sentence should read 'from my lowest note to the top of my compass.' 'The top of,' inserted here, appears in the Folio.

and there is much trifling, excellent voices in this little organ, yet cannot you make it speak," & blood (sic) do you think I am easier to be played on than a pipe, call mee what instrument you will, though you find me not," you cannot play upon me.

TO WITHDRAW WITH YOU.

In the very first sentence we are met by a remark which has been much discussed. What does Hamlet mean when he says "To withdraw with you"?

Of the various answers which have been given to the question we, as musicians, are concerned with two only; one, that Hamlet is speaking to the flute-players, and that he intends to say 'get you gone'; the other, that he is addressing Guildenstern, or both Guildenstern and Rosencrantz, with whom he desires to withdraw. Thus, according to Moberly, the words signify 'just stop aside for a moment,' whilst Malone interpolates the stage direction, *taking Guildenstern aside*.

Of the two explanations, the latter is, beyond all doubt, the more correct. A glance at the punctuation of the passage as it appears in the Quarto will show that Hamlet is speaking to his fellow-students; nor should we forget that to discuss the musicians in so summary a fashion, after summoning them to give a sample of their skill, would be the reverse of a gracious act. Moreover, Hamlet, having no intention of appropriating the recorder he has borrowed, would surely wish the player to remain until he has done with it. But there is a more serious objection to the supposition that Hamlet is ordering the flute-players to leave the stage: 'to withdraw with you' does not mean 'go away.' Those

12 In the Folio of *song*, the passage "there is much trifling, excellent voices in this little organ, yet cannot you make it speak," is thus, "do you think I am easier to be played on than a pipe," reads differently, "speak" and "Blood" being inserted, and "why" inserted; thus: "There is much trifling, excellent voice in this little organ, yet cannot you make it. Why do you think," &c. Bearing in mind that the Folio was, in all likelihood, taken from the acting copy of the Play, we may suppose that "why" was substituted for "Blood" in deference to the interpolation of Shakespeare's line, *the Fortunes*. The omission of 'speak' has been thought to be due to the circumstance that the word was struck out accidentally when the alteration was made in the text. Knight, however, in the first edition of his Shakespeare, defends the reading of the Folio, on the ground that 'speak' is used in its natural sense, as equivalent to 'sound.' The difficulty enough more easily than any other word instrument, no skill being required to draw a note. Guildenstern, says Knight, could make the recorder speak, though he could not make it utter harmony; and he contends that the passage as printed in the Quarto should be pointed thus: 'yet cannot you make it. Speak! & blood, &c.' But there can be little doubt that 'speak' corresponds to 'discourse' in Hamlet's preceding speech. The error has been afterwards noticed by Knight, for, in a later edition, he withdraws his objection to the reading usually received, observing, "We now prefer to consider the Folio accurate."

13 'Though you find me not' is obviously incorrect. Both the Quarto of *song* and the Folio of *song* read 'though you can find me.'

who maintain that the words are addressed to the flute-players are obliged to propose an alteration of the text, suggesting that Shakespeare wrote "So, withdraw you;" or, "So withdraw, will you?" (Mason); or, "Go, withdraw with you" (Tachschreier); or, "So,—[taking a recorder] withdraw with you" (Stanton).⁴²

It is not easy to understand how so forced and unnatural an interpretation can find acceptance, except as an explanation, or defence, of a common mode of playing the scene. Many of you may have seen so-called recorder-players, usually two in number, rush upon the stage, hand to Hamlet a pipe not much larger than a penny whistle, and then make off with such haste as to suggest the idea that they must have committed the unpardonable sin, or were at least as guilty as Hamlet's uncle.

When the discourteous treatment of the flute-players began I am not in a position to say. Suspicion would naturally fall upon Heminge and Condell with their brother share-holders, as being its authors; but the punctuation of the passage⁴³ in the Folio militates against the suggestion. It certainly did not originate in our time, for I have had no difficulty in tracing it back a hundred years. In *Hamlet*, revised by F. P. Kemble, and now first published as it is acted by their Majesties' servants of the Theatre Royal Drury Lane, September 16th, 1800, Hamlet's speech is printed thus:—

Ham.—Ay, sir; but, while the grain grows,—the proverb is something musty.

Enter Horatio⁴⁴ and two Musicians, with Recorders.

O, the recorders,—let me see one — [Takes a recorder]. So, withdraw with you.—

Exeunt Horatio and Musicians.

⁴² It does not appear to have occurred to any of the writers who have attempted to throw light on the passage, that Hamlet's object in withdrawing with the company is to take them out of the hearing of the musicians; an explanation which, as a flute-player, seems to be sufficient. Mark Mason declares that the words "in withdrawal with you" have no meaning as they stand, "you," he adds, "means all the officers have attempted to arrest them." Capell thinks that Hamlet intended to say "to have done with you, draw toward us and with you." Gervase says that the obsolete words may refer to some gesture which Goldensmire had used, and which was at first interpreted by Hamlet as a signal for him to attend the speaker into another room: So, too, Coldecott: "They (Goldensmire and Rosencrantz) by a waving of the hand or some such sign, as the interpretation of Hamden's, intimate that he should remove to a more retired quarter."

⁴³ In the Folio of 1616, the passage appears thus:—

Ham.—I, but while the grain grows, the proverb is something musty.

Enter one with a Recorder.

O the Recorder. Let me see, to withdraw with you, why do you go about to recover the winds of me, as if you would drive me into a toy?!

⁴⁴ When Hamlet calls for the recorders, it is usual for Horatio to go and fetch the players, and return with them.

But in Capell's edition of Shakespeare, which was published in 1768, we find, after Hamlet's words, "*leave me, friends,*," the stage direction, *Breast Rod. and Gun. Horatio, and the Players, withdraw.*" Assuming that the stage direction indicates the way in which the scene was played in Capell's time, we may infer that in the middle of the eighteenth century it was usual for the flute-players to be still on the stage when Hamlet requests his friends to retire. Possibly it may be known in the theatrical world whether or not the custom of dismissing the musicians as soon as Hamlet has taken the recorder was introduced by Kemble.

I know no touch of it.

Let us now consider the allusions to music with which the scene abounds. The first which calls for comment is the phrase used by Guildenstern when he says, referring to the recorder, "I know no touch of it." This obsolete expression is equivalent to 'I cannot play a note on it.' Shakespeare had already employed the phrase in "*Richard II.*" (Act I., Scene 3) :—

Like a cunning instrument cased up,
Or, being open, put into his hands
That knows no touch to tune the harmony.

The touches, however, were not only the fingerings: they included the notes to which the fingerings gave rise. Thus, in the "*Merchant of Venice*" (Act V., Scene 1) we have "the teacher of sweet harmony," and

With sweetest touches pierce your mistress' ear.

It would seem more appropriate if the term had been confined to lutes, harps, and other instruments, the sounds of which were elicited without the aid of the breath. Shakespeare, however, is not the only writer who uses it to indicate the notes of the flute; Milton speaks of the 'ackern teacher' of the recorder.

GOVERN THESE VENTAGES.

To a flute-player the most interesting sentence of the passage we are discussing is in Hamlet's next speech. Shakespeare there sums up the art of flute playing, declaring it to consist in the government of the holes with the fingers, and the quickening of the instrument with the breath: "govern these ventages with your fingers and thumb, give it breath with your mouth, and it will discourse most eloquent music."

¹ Remondino and Guildenstern absent, but Horatio and the Players withdraw. Capell suggests the following explanatory note: "It will be seen from the repetition of the verb in the bottom of this page what is the editor's opinion concerning who the word '*friends*' is address'd to, and, consequently, what the time of pronouncing it should be."

Whether the word *ventages*, or *ventiges* as it is spelt in the Folio of 1623, have used to denote the finger-holes, was coined by Shakespeare I am unable to say. Possibly it might have been in use amongst flute-players in his time. It appears that the holes are even now called *vents* in America, whilst in England we speak of *rest holes*, applying the term to holes when opened for the special purpose of influencing the emission, intonation, or quality of notes other than those which the holes so termed are intended to produce; and we say that we *rest* a note by opening such a hole.*

The description of execution as consisting in the government of the ventages is a most apt illustration of its nature. Practice is but the art of so disciplining the rebellious fingers as to enable them to acquire the power of governing the ventages. Shakespeare is usually credited with being the first to use the expression. I find, however, that he was anticipated. In one of the poems of St. Paulinus of Nola, who was born in 353, and died in 411, we have the exact phrase; the flute-player, says Saint Paulinus, governs (*regit*)—the poem is in Latin—the holes with his fingers.†

GIVE IT BREATH WITH YOUR MOUTH.

The next phrase 'give it breath,' does not merely mean 'supply it with wind'; the words are used in a far higher sense: breathe it; inspire it; animate it; endue it with life.

‡ If we take one of the fundamental notes, say, for instance, E, by blowing with great force we can, without changing the fingering, produce an E two octaves higher, but it will be dull, flat, and unpleasant to the ear. If we now open the A hole, the high E will become bright, sharp, and clear. The A hole, when used in this way, is called a *vent hole*.

‡ *Ut citharæ modulans uirga uertere phlegmæ
Ducens lila movent, vel qui psallentis liliis
Liliis test culmen, flexu uento canon ab uno
Duo flexi, uento uento uento, uentoque uentoque
Temperat uento uento, uentoque uento uento
Modulaturque uento uento, uentoque, uentoque,
Ut rapida uento uento uento uento uento
Citharæ liliis modulatur uento uento,
Ducens uento uento uento uento uento
Duo uento uento modulatur uento uento
Ducens, per citharæ movent quam citharæ uento,
Duo uento uento uento uento uento uento,
Fons uento, ut liliis, liliis liliis, liliis uento,
Fons uento uento uento uento uento uento,
Qua uento uento uento uento uento uento,
Qua uento uento uento uento uento uento,
Citharæ, uento uento uento uento uento uento.*

Myra, Palæstræ Citharæ, Vol. II, p. 409. S. Paulinus Poemæ uento, 29.
See also Grynnus, *Myra uento*, Vol. I, p. 152. *Myra Palæstræ VI.*, where the passage is differently punctuated.

It will be observed that three different instruments are alluded to; the citharæ played with the plectrum, the *lilium* whose pipes are rubbed against the lip, and the *flute* with its finger-holes.

The artful youth proceed to form the quire,
They breathe the flute or stir the vocal wire.—*Prior.*

Ye rise discord and sing,
The breathing instruments inspire —*Pope.*

Explicit images animate at this centre.
St. Paulinus of Nola.
With breath and fingers giving life
To the shrill cornet and the flûte—*Drayton.*

Shakspeare elsewhere speaks of breathing life into a stone, and St. Augustine refers to the breath blown into the flute as if it were the spirit or soul of the instrument. "Si uana flutes," he says (*Tract. XIX. in Joann.*), "infusa dum tibiis, non potest uera spiritus implere duo corda." The metaphorical figure which attributes to the breath of the flute-player the power of creating life is expressed in all its fulness by Testallian. The worthy Father deems that when we blow the flute, we convert the instrument into a human being, although we breathe into it as the Deity breathed his soul into man.¹⁸ A similar thought, which, as I have said,¹⁹ roused the wrath of the matter-of-fact Sir John Hawkin, is found in the wild rhapsodies of Fludd, who represents the Supreme Being vivifying the universe, as the flute-player gives life to his instrument with his breath. Fludd introduces a drawing, reproduced by Sir John, of a *Apple-flute*, and says, "as this instrument does not sound, is not moved, nor has any virtue in its own nature, and by itself without a moving spirit; so also neither can the world, or the parts of the world, move or act by themselves, without the stirring of an infinite mind. As, therefore, the highest mind, God, at the top of the whole machine . . . makes the structure of the world produce his music . . . so also when the musician *blows life*," &c. The same notion is expressed by St. Paulinus of Nola, in a passage just alluded to; but the conception is not confined to Christian thought, nor, indeed, to the thought of our hemisphere. An idea so similar to Shakspeare's that Carl Engel²⁰ was struck with the resemblance, is to be found in a prayer offered up by an Aztec prince on his accession to the throne: "I am thy flute," he said, addressing the deity, "revel to me thy will; breathe into me thy breath like into a flute, as thou hast done

¹⁸ Hoc ex uento qd in istius flautis, harmoniam istius deus, quantum de uento uult flautis, sicut et Deus de spiritu suo. *St. Paulinus. Lib. VI.*

¹⁹ Proceedings of the Musical Association, 1855-56, p. 109.

²⁰ Fludd wrote in Latin. The original of the drawings here translated will be found in Chap. VI. (p. 93), of his *opusculum De Musica mundana*, published in Vol. I. of his work, entitled "Unusquisque Quærit" &c.

²¹ Engel's Catalogue of the Instruments in the South Kensington Museum, p. 82.

to my predecessors on the throne. As thou hast opened their eyes, their ears, and their mouth to utter what is good, so Harriet do to me."

The flute thus brought to life proceeds in its turn to breathe:—

The breathing flute's soft notes are heard around,
And the shrill trumpets mix their silver sound.—*Pope.*

Thus long ago,
Ere leaving bellows learn'd to blow,
While organs yet were mute,
Timotheus to his breathing flute
And sounding lyre

Could swell the soul to rage and kindle soft desire.

—*Dryden.*

The breath of the flute is its music. Aristophanes, in the "Frogs" (1144), represents the blessed in a future state as basking in a flood of most beautiful light, whilst round them floats the breath of flutes (*akhe wreth*); Pindar uses the same expression (*Non. III.*, 137); Theocritus (*Epigram V.*) calls syrian-mistle wax-beard breath,¹² Euripides (*Or.* 148) terms it the breath of the reed¹³ (*reus Harmon*), and styles flute music (*Phon.* 788) the breathings of lotus¹⁴ (*luche oxyanta*); a similar phrase (*flamine fluit*) is found in Horace (*Od.* III. 19, 20); in Siliacus the following lines are devoted to the audible flute breath:—

Dare ravibus chorodias,
Quibus astra per palati
Crepulis redanda buccis
Gurg' aura fibula.

IT WILL DISCOVER MOST ELOQUENT MUSIC.

In the remaining member of the sentence we have a description of the music the recorder can "discover." There are three different readings of the epithet by which it is characterized. In the Quarto of 1603, the apocryphal version of the Play, it is termed most *delicate*; in the Quarto of 1604, the first issue according to the true copy, most *eloquent*; in the Folio of 1613, the supposed acting edition of the Globe Theatre, most *exquisite*. The first-named epithet, *delicate*, was applied by Lancham, as you may perhaps

¹² *εγγαθρῶν κωκυθῶν πολυδακρυῶν*. The allusion is to the circumstance that the pipes of this organ were called so each after by means of wax.

¹³ The pipes were made of reeds.

¹⁴ The lotus here referred to is not the Egyptian lotus, but an Indian wood of which some flutes were made.

¹⁵ *Siliacus Lib. ix. Epit. 13.* See *Officia Parochole Canon*, Vol. LVIII., p. 613.

remembers, to the "harmony of notes" with which Queen Elizabeth was greeted on her arrival at Kenilworth."

The editors of the Cambridge edition of Shakespeare have thought right to asperge *excellent* and restore *eloquent*. Fear, I apprehend, will question the wisdom of their decision. Any commonplace writer would think of *excellent*, whereas *elegant*, which so admirably keeps up the figure by which, throughout the scene, the faculty of speech is attributed to the recorder, bears the stamp of Shakespeare's genius. This will become more evident if we paraphrase the pregnant sentence, "give it breath with your mouth, and it will discourse most eloquent music," so as to bring forth the embryonic ideas lying undeveloped within it, thus: 'breathe into it the breath of life, and it will speak, its voice will be music, and it will discourse most eloquently.' Not only does the substitution of *excellent* for *elegant* rob the happy expression of its beauty, but it gives rise to a repetition so objectionable that it would excite a reprimand if it occurred in a schoolboy's exercise, for in his next speech, Hamlet applies the same epithet, *excellent*, to the voice of the recorder.

It is, however, only fair to say that *excellent* is not without a defender. Mr. Hiram Connor, M. A., Professor of Anglo-Saxon and English Literature in the Cornell University, in a brochure, printed in 1894, entitled "Jottings on the text of Hamlet (first folio versus Cambridge edition)," expounds himself thus: "I feel a certain seriousness—that's hardly the word—about 'eloquent,' not in keeping; whereas in the word 'excellent,' there seems to be implied the idea, that the music that can be got out of the little instrument is superior to what one would suspect. The word 'excellent' should be pronounced with a downward circumflex on the 'ex,' imparting a patronising tone." Surely those Hamlets who think that a fitting use to make of a recorder is to break it up and throw it to the dogs, should take the cueing favoured by the learned Professor, and, adopting a patronising tone, pronounce the word with a downward circumflex on the 'ex.'

LOOK YOU, THERE ARE THE STOPS.

In the word stops here used by Hamlet we have another technical term which is now quite obsolete. It is true that we still speak of stopping the flute by closing the holes, and we say that the flute stops when the pads of the keys are so well adjusted as to render the tube air-tight; but the substantive *stop* has disappeared from the flute-player's vocabulary. In the seventeenth century, however, it was a common word. Several meanings were attached to it. It is

* Proceedings of the Medical Association, 1897-98, p. 148.

chiefly through not being acquainted with the different senses in which it was used, that expositors have so often run aground when attempting to explain its significance. The term was employed to indicate:—

First, the *finger-hole*. It is to these that Hamlet points, or should point, when he says: 'Look you, these are the stops.'

Secondly, the *fingering*, or several positions of the fingers by which the different notes were produced. Hamlet uses the word in this sense in his next speech, when he says, 'you would seem to know my stops.' *Stop* is again employed to denote the *fingering* of a wind instrument in the Induction to the Second Part of "King Henry IV.":—

Rumour is a pipe
 of so easy and so plain a stop,
 That
 The multitude
 Can play upon it.

The same meaning attaches to *stop* in "A Midsummer Night's Dream," the word being implied only, not actually used. The passage is often misunderstood, and taken to indicate that Shakespeare looked upon the recorder as a childish instrument. He is not, however, reflecting on the recorder; he is only playing on the term *stops* in its double signification as *points* in punctuation and *fingering* in the manipulation of a musical instrument; but, in the refinement of his wit, he does not express the word, but leaves it to be understood. Prologus having kept his *stops* so badly as to pervert the meaning of his address, so that 'His speech was like a tangled chain; nothing impaired, but all disordered,' Theseus says, 'This fellow doth not stand upon *points*'; Lyander adds, 'He hath rid his prologue like a rough colt: he knows not the *stop*,' and Hippolyta follows with, 'Indeed he hath played on his prologue like a child on a recorder; a sound, but not in government'; her meaning being that as Prologus knew nothing of the use of *stops* or *points*, his speech, as he had spoken it, was words without the true sense, just as the sound produced by a child playing on a recorder would not be a tune owing to the child's ignorance of the *stops* or *fingering*. The recorder is the easiest of wind instruments to sound; a child can make it speak, but, not knowing how to *finger* it, cannot govern the ventages, and command them to an utterance of harmony.

Shakespeare is not the only poet who uses *stop* in the sense of *fingering*. Drayton, for instance, credits Rastrelle with—

Teaching every stop and key (key).
 To those upon the pipe who play.

Amongst recorder players, *stops* denoted not only the simple *fingering*s of the notes of the diatonic scale for which the

recorder was pierced, but also the more complex combinations of the fingers known as *cross-fingerings*, by which accidentals were obtained before the application of closed keys to the flute. The following, in which *cross-fingerings* are referred to, is from a Tutor for the recorder, entitled *The Delightful Companion, or, choice new lessons for the Recorder or Flute*. "This Table directs and is a Guide to know all the *Steps* upon the Recorder or Flute, both Flat and Sharp, or the *half notes* ascending and descending, according to the Scale of Musick."

Thirdly, mechanical appliances for the production of notes are sometimes spoken of as *stops*. Lord Bacon employs the word to signify the *feats* of the lute, and Shakespeare writes: "his jutting spirit . . . is now crept into a lute string and now governed by *stops*." Milton calls the keys of the organ and the *pipes* of the syrinx *stops*. The *knobs* attached to levers, which open and close sets of pipes in the organ, as well as the *air of pipes* acted on, are now known as *stops*.

Fourthly, *stop*, like *touch*, has been transformed from the means by which a note is produced to the note itself. We can find an example in "Hamlet":—

'—a pipe for fortune's finger
To sound what *stop* the player.'

Milton speaks of the *stops*, or *notes* of organs, meaning by the term organs, wind instruments, and calls the notes of the syrinx the *stops* of quills, that is, of reeds of which the pipes of the syrinx are made. Again, Drummmond, in a sonnet addressed to the lute, terms the notes of the instrument *stops*:—

Thy pleasing notes be pleasing notes no more,
But orphan wailings to the hunting ear;
Each *stop* a sigh, each sound draws forth a tear.

YOU WOULD PLOKE OUT THE HEART OF MY MYSTERY.

We now come to Hamlet's last speech. It contains but one obscure expression:—"You would pluck out the heart of my mystery." As there is a reference to *sonnet* in every other member of the sentence in which the words occur, it is not

"The full title of the copy of the work in the Library of the British Museum is as follows: *The Delightful Companion; or, choice new lessons for the Recorder or Flute, to which is added, several lessons for two and three flutes to play together. Also Plain and Easy Instructions for Beginners, and the several graces proper to the Instruments*."

The Second Edition Corrected. London, Printed by John Staphord, at his Shop near the Temple Church, and for John Carr, at his Shop at the Middle Temple Gate, 1682.

According to Nelson (British Music Publications), *The Delightful Companion* was published in 1682, and reissued in 1684 and 1685.

likely that Shakespeare intended the phrase to form an exception. We may therefore suppose that Hamlet is likening the steady attempts of Rosencrantz and Guildenstern to draw from him, by smooth words, the heart of his mystery, to the gentle action of the soft tips of the fingers, by which the harper, or the lutenist, makes his instrument speak.

Hamlet takes leave of the recorder with a pun. He plays upon the word *fore* in its double meaning as a verb, to chafe or irritate, and as a noun, the name of the transverse ridges applied to such instruments as the lute to guide the finger in stopping the string. "Though you can *fore* me," he says, "you cannot play upon me." Shakespeare again makes use of *fore* as a verb for his wit in the "Taming of the Shrew" (Act II., Scene 1), where, drawing on his inexhaustible fund of *jeu de mots*, he puns on it with *fore*. Hortensio, describing how he was assailed by his pupil when giving a lesson on the lute, says:—

I did but tell her she mistook her *fores*,
And bow'd her hand to teach her fingerling;
When, with a most impatient devilish spirit,
Fores, call you these? quoth she: I'll *fore* with them:
And, with that word, she struck me on the head,
And through the instrument my pate made way;
And there I stood amazed for a while,
As on a pillory, looking through the hole:
While she did call me, rascal fiddler,
And twangling Jack; and twenty such vile terms,
As she had studied to misuse me so.

DISCUSSION.

THE CHAIRMAN. — Ladies and gentlemen, I am sure you must have heard with much interest, indeed I might say delight, from this paper the result of Mr. Welch's long studies upon the lute and the instruments which belong to that family. He has not only carefully analysed the interesting scene of "Hamlet" and the recorders in Shakespeare's play, but he has told us something about the lute in ancient times, quoting from his extensive reading in the works of the early writers in Rome who spoke about the instrument. I almost wondered that he had not gone a little further and told us that in Rome there was a College of Lute-players; possibly some day he will accord his researches and let us hear something about that, for I am sure it would interest us all to know that music was so methodically cultivated and looked

after among the Latins in ancient days. There are scores
few remarks I would like to make on the paper. First, with
regard to the word "recorder." It is always dangerous when
persons who have not sufficiently mastered an art set them-
selves to explain passages that require at least a knowledge
of its terminology. We often perceive this truly illustrated
in the treatment of musical matters by novelists. I remember
seeing one commentary on this Shakespeare passage, in
which the writer said on the words "Enter the recorders":
"This must refer to some of the lower legal officers!" That
gentleman had certainly not sat at the feet of Mr. Welch.
But even in the comments on Shakespeare by those who
have some acquaintance with their subject there are some
curious things. One is in connection with the words
"broken music." I am aware there is some little difference
of opinion as to the exact meaning. I recently saw broken
music described as "arpeggio music," because the chords
were broken. I have very little doubt, and probably I shall
carry most of you with me, when I say that it was music not
composed for any one set of instruments. Instruments,
whether recorders, viola, cornets, flutes, or others, were made
in sets of different sizes, but all of one type. Now "broken
music," in my estimation, was music in which instruments of
different kinds were used together—the set was broken.
There is a curious allusion, one of the earliest I have found,
to flutes as used in plays in the tragedy of "Gordelric,"
Act V., played before Queen Elizabeth in 1564. There
different instruments are employed in the several acts to
represent the different sentiments and subjects in the play.
In the fifth Act it is directed that drums and flutes should be
used. If the flutes were meant to be recorders, and I have
little doubt they were, one wonders how they made them-
selves heard, unless there were many horns used by the drums
so that the soft flutes had a chance. One wonders at the
correctness of the many allusions to music in Shakespeare.
Of course the same is said of everything that Shakespeare
touches, whether medicine, divinity, forestry, statecraft, the
animal world, or anything else. But it must be remembered
that he was well acquainted with many of the persons of the
day who were conversant with these things, and amongst his
friends were some musicians—we know of one William
Holborne—and from their works, and, naturally, also their
conversation, he must have learned a great deal; so although
Shakespeare was not a violinist or flautist, or a player on the
recorder or lute-boy—of course he may have tried them—
still, from what he heard, he must have learned something
about the instruments, and as has been said to-day, his
allusions are as correct as if they had been written by one
who was himself a player. That William Holborne wrote a

remarkable work, "*Medulla Musica, or Marrow of Musick* ratched out of the tap of two most famous Musicians, William Byrd and Alfonso Ferrabucio." Whether there is anything on the instrument now under discussion in this book I cannot say. From the remarks which Mr. Welch made with regard to the music of the theatre it seems that even in those early days they were not inclined to spend much money on the art. They were satisfied with a very little, and, if I understand rightly, they sometimes called on the actors to take a turn at the music. We have seen in our own days theatres in which they do not spend much money on their music—they manage to get a lot of brass, and so make more noise than music. Amongst the instruments spoken of by Mr. Welch as belonging to Henry VIII., I do not think he mentioned one which is in the Catalogue of his Will—"one great Bass Recorder," and with regard to flutes mentioned by Shakespeare there is one about which Mr. Welch did not tell us anything—"the wry-necked flute." Whether it was a bass flute with a crooked mouth-piece coming out of it, or one of the earlier forms of the cor anglais, I do not know; I will ask Mr. Welch whether he can say anything about this. On the question of pitch, it is difficult to understand how some old music could have been sung unless the pitch has much changed. I think Dr. Cassings has some ancient larks, and perhaps he can say something on this point. As to the word "*ventages*," I do not find it anywhere else. I turn to dear old Johnson, the word is not there. Of course we all know what it means. It must come from *ventus* (wind). Whether Shakespeare thought fit to use it instead of "*vents*" for the sake of the metre I cannot say; but it is curious, so far as I know, that it is not found anywhere else. Our lecturer also touched on the question of "*touch*" and what it meant in Shakespeare. Of course the word has been extensively used in music. In France they call the keys *touches*. In my young days old persons still spoke of a person's "*touching*" the piano-forte; the word is quite rightly applied to the stopping of the vent-holes of the recorder. I was interested to hear these remarks of Mr. Welch on the subject of the word "*fret*." I also thought that Shakespeare in that case was making a pun on the words "*though you can weary me, you cannot fret me just as you will*." We all know that on the old instruments, viols and lutes, they had frets. We even use the word for the old clavichords in which two or more notes were obtained from the same string; we say it is fretted in some parts, meaning it is stopped throughout; the Germans use *geblasen*. Mr. Welch spoke of the old flutes being made of reeds. That is quite true. The old flute is the *calamus*; but I think the term was very widely used by the ancients; they not only

had the word *slide*, but *reflexes* as well: and you know that like as the reeds of the clarinet, bagpipe, bassoon, &c., a little vibrating reed in early times was fastened in a so-called *date*, then merely a pipe open from end to end. The Greeks certainly had different kinds of dates—Phrygian, Lydian, and so on; but when one sees the terms mentioned by these old writers, one can never be certain it was not played with a reed. With regard to the word *stop*, it is interesting to note the many uses of the term. In the organ it is the handle or pull, which practically controls the ventages; if the sliders are open the pipes speak. When you push in the stops the wind can no longer reach there, though the keys are down. This is very much what happened in the very old organs in which the players pulled out the separate sliders for each note, and then put them in. This is evidently what the Venerable Bede meant when he has credited the performers as governing the alphabet, i.e., sounding the notes required. They could not be played very fast, nor play any chords. I will now ask some who are present to speak. There are many here who can tell us something about this interesting subject. Perhaps Dr. Cummings will first favour us.

Dr. Cummings.—There is only one little point that I have to add that has not yet been mentioned; it is with relation to the sentence "Though you can fret me, you cannot play on me." As a matter of fact the early viols had no fretting; and when people tried to find short ways of learning to play on them, they used temporarily to make frets with a piece of string. They were put round the neck of the instrument and fastened with wax. The idea of fretting suggested something that can be put on to-day and taken off to-morrow. The instruments of the guitar kind had regular frets, but the early viols had no such thing. The learners did just what they do now. At the shops of dealers in cheap violins you can buy a piece of paper, which you can paste on the finger-board, and which shows the points at which the strings should be stopped to make the notes. But in those days they used the more primitive device of tying a string round the finger-board. I have never tried the ventages myself. But I have wondered whether in those days the unskilled tried to fret even these instruments by putting on bits of string to guide the fingers. We know they had sometimes little bits of ivory between the keys. It would have made the fingering very much easier. As to pitch, that is a dreadful business; there were so many pitches. Recorders were used in churches; and if they were played with the organ, as probably the recorders at Chester were, the pitch would necessarily have been very high. We know the church pitch was very much higher than the outside concert pitch, and the accidental circumstances of finding these recorders up to what we used to call Philharmonic

pitch does not help us the least bit. We might find other recorders of a low pitch. We must not forget that the recorder was a sweet-toned instrument. This one is made with the six holes and the two thumb-holes, one of which was stopped with wax at the will of the player. But some recorders had also a little hole at the back of the instrument, at the top, which was covered with a little bit of skin to give it a peculiar tone. There is one of this kind, I think, at the South Kensington Museum. This, no doubt, altered the tone considerably, and made it more crying perhaps. Here is a picture I have brought of a female flute-maker, which shows all the different kinds of flutes that were made at the time. They are furnished with their names in French and German.

Mr. F. CONSUMMUS WOODS.—What we have heard, Mr. Chairman, about a recorder being supposed to be a lawyer by some people, has also come under my notice. Some few years back Mr. Topham, of Oxford, lent me a recorder, a very handsome Ivory one, to exhibit after a lecture before the British Association. Many eminent men present expressed great pleasure at being allowed at last to see an instrument which was hitherto unknown to them. One must not of course expect too much, even from members of the British Association. Ignorance is not always confined to musical matters. That I learnt during the visit of the British Association to Blenheim Palace, later in the same week, when a lady asked where it was possible to obtain the best view of the battlefield of Blenheim from the Palace windows. The recorder appears to have been a really popular instrument in its day. We may judge this to be the case from the fact that it was often represented in wood carvings, and that several instruction books—"Tutor" is the actual title used—are known to exist on the shelves of public and private collections of musical books. A building in Grove Street, Oxford, exactly opposite to Merton College Chapel, and almost adjoining the east end of Oriel College Chapel, was pulled down in 1883, or 1884. The carved staircase was of great interest to musicians. Its panels represented groups of various musical instruments—lutes, viols, harps, flutes, and in one or two cases the "beaked-flute," or the recorder. These representations were very faithful in all their details, and the character of the recorder mouthpiece was most noticeable. As in the case of most, if not all, instruments there appears to have been a complete set of recorders. One "Tutor" for the instrument has an excellent engraving of four players evidently handling treble, alto, tenor, and bass instruments of the recorder family. In the bass instrument, by-the-way, the mouthpiece is so arranged as to enter the top of the tube, not the side, as the bassoon of to-day has it. Allusion has been made to the

salutem, and this opens up a subject on which I should much value a little explanation. We are told by Herodotus (VI. 50) that among the Lacedæmonians and the Egyptians the *allys* was a member of a class, and that this flute-player was in his turn the son of a flute-player. The profession seems then to have been kept to certain families, as we are told that trades and occupations are among the Hindus of to-day. Is Herodotus here speaking of a precursor of the recorder, or does he mean to convey the idea of the player handling a good instrument of the oboe or bassoon type? Were the *allys* and the *thaler* flutes or oboes? It would be of great interest for us to learn from our lecturer what is the precise difference between the flute and the recorder. Why did the recorder disappear and the flute remain with us?

Dr. MacLellan.—As to the "Midsummer Night's Dream" reference, some people may not improbably have fancied that the recorder there mentioned was a childish instrument. But of course it is not so. The scene is the "Pyramus and Thisbe" scene, where some "labourers" of Athens are introduced to give their rude play before Theseus and Hippolyta. The speaker of the prologue is some Bottom, who, though he has got up the words, makes a hash of the full-stop. Then Hippolyta says, "He hath played on his prologue, as a child on the recorder"; meaning, not on a nursery instrument, but on an instrument beyond its powers.

Mr. Wilson.—I will touch in the briefest possible way on some of the questions asked—to discuss them in detail would take up more time than the Paper I have just read. First, a word on the College of Flute players. The *collegia* or clubs, called colleges, at Rome were corporations which could hold property, sue, and be sued. They were very numerous. There were Colleges of Magistrates, of Prætors, of Augurs, of Priests of the different temples, as well as of persons engaged in various trades. Amongst those who played on wind instruments there was a College of Horn blowers (*Bucinatorum*), of Trumpeters (*Litticini*) and Cornets (*Cornicini*); but far more important was the College of Flute players (*Fibricini*), for it provided the music for the Temple service. The duties, or labour, as Ovid calls them, of a Temple Flute player were much heavier than those of a church organist. As a sacrifice he was required to play, not only before the sacred rite began, whilst the hymns were sung, and when the congregation were leaving the Temple, but at the libations and the consecration of the victim, and, indeed, at other times during the service, in order to appease and soothe the deity, so as to induce him to accept the sacrifice, hear the prayers, and grant the petitions. In fact, amongst the Greeks, if no sign of drone labour was vouchsafed, he was expected to keep on with a

voluntary until a favourable omen appeared. On account of the holiness of the office great honours were bestowed on the players by *Roma Pontificalis*, the founder of the College. Those on duty in the Temple of Jupiter Capitolinus had the right of taking food (*per manus*) in the sacred edifice. An attempt was once made to deprive them of the privilege, whereupon the College left Rome in a body and refused to Tiber, so that there was no one left to play at the sacrifices. Fears of an outbreak of divine wrath were aroused, as the priests were sacrificing without flute-music, and the Senate, in alarm, sent ambassadors to the Tiburtines, asking them to assist in restoring the flute players to the Romans. The Tiburtines, having in vain besought them to return, are seriously credited with having had recourse to a ridiculously incredible stratagem. They are said to have invited them to a banquet, and, having plied them with wine till they lost their senses, to have thrown them into carts, in which they were carried back to Rome, so that when, at daybreak, they regained consciousness, they found themselves in the Forum, surrounded by a crowd of citizens, overjoyed at their return, and begging them to remain. I have attempted to trace this thread of historical nonsense to its source, but I will not detain you with my proposed explanation, for if you will turn to the volume of our Proceedings which contains my former Paper on the recorder, you will find it there.¹ To the same Paper I will refer you for a drawing of a Great Bass recorder, which I have conjectured might have been given by Henry VIII. to a King of France.² It is of such immense size that the player worked two of the keys with his feet. I have also reproduced an engraving from *Factories*, giving a back and front view of an ordinary great, or contrabass, recorder³ without pedals, and have printed a complete list of the one hundred and fifty-four flutes which belonged to Henry VIII.⁴ His Great Bass recorder had previously been mentioned by Mr. William Chappell, and in *Grove's Dictionary*, but finding that the inventory had never been published in its entirety, I had a copy of it taken from the Harleian Manuscript in the British Museum. On the question of the sort of flutes played with drums in the dumb show before the fifth Act of "*Colander*," I fear that I shall be obliged to ask our worthy Chairman to allow me to leave my doubts. I always thought that they were flutes,—the flute and drum were very popular in Queen Elizabeth's time—and that the flutes referred to in connection with the third Act

¹ *Proceedings of the Musical Association*, 1892-93, p. 199, Note 59.

² *Ibid.*, p. 178.

³ *Ibid.*, p. 173.

⁴ *Ibid.*, p. 189.

were recorders. The very-necked fife I must pass over; it requires to be dealt with in a special Paper. I hope at some future time to bring before you what I have in manuscript on the subject. Suffice it to say that a point on which critics differ is whether the fife itself was curved, or whether Shakespeare intended to allude to the neck of the fife, which is held away when he plays. So convinced was Carl Engel that the fife was meant, that he exhibited in a case, at the South Kensington Museum, an instrument to which a label was attached intimating that it was a specimen of the very-necked fife of Shakespeare. It was a siskin, or coronet, an instrument long extinct, but the base of which, the serpent, narrowed almost down to our time. What Dr. Cummings has told us about the application of frets in older times is very interesting. The circumstance that instruments were formerly fretted, not by the maker, as is now customary, but by the player himself, adds point to Hamlet's words "you can fret me." The number of the holes with which the recorder was pierced was nine, one of them, a duplicate for the little finger, not the thumb, being closed² with wax. The wax has fallen out of the instrument just shown you. As for the reputed recorder in the South Kensington Museum, on examining it I found that it was made in New Bond Street, not a hundred years ago, and that the hole covered with membrane could not by any possibility affect the tone. It seems likely that Carl Engel was imposed on by some enterprising dealer who cleverly erased with a hot iron the words "Bond Street," and so was able to make Engel believe that the instrument was an old one. There is a drawing and description of it in the Paper to which I have already referred.³ Mr. Cunningham Woods spoke of a passage in Herodotus. I will mention another passage relating to the flute in that author in order to draw your attention to the views of a musician on a technical expression it contains. The Lydians, in their military music, during a campaign against the Medians, are said by Herodotus (I. 75) to have made use of the *fenistias* and *masculine flutes* (*αἰσὶν γυναικείων τε αἰσὶν ἀνδρῶν*). These instruments corresponded to the voices of the two sexes, the *fenistias* representing the woman's, the *masculine* the man's voice. M. Gervais, in his great work on ancient music, gives it as his opinion that *fenistias* and *masculine flutes* included the whole flute family from the shrillest treble to the deepest bass flute. He does not, of course, undertake to say what members of the family the Lydians employed. Mr. Woods asks if the *αἰσὶν* was, or was not, a reed instrument. *Αἰσὶν*, like our word "pipe," was a generic

¹ *Ibid.*, p. 255.² *Ibid.*, pp. 255 to 257.

nerve, and included instruments of different kinds,—even the pipes of the syrinx were called *aites*. There was no reed to the *stapinatos*, or transverse flute,—but the *aites*, so popular with the Greeks,—the instrument which Mæcenas threw away, and the boy Alcibiades refused to learn, because they thought that it disfigured the face—as well as the *basikos*, or double flute, were most certainly played with a reed. It would not be safe, however, to call them either hautboys, bassoons, or clarionets, because the reed, instead of resembling that of either of these instruments, might have been similar to that of the argpool. The reeds used by the Greeks were, like our own, made of reed,—we know the name of the lake where the best reeds were said to grow—but the Egyptians appear to have used straw for the purpose. A straw has been found in an Egyptian tomb lying near a flute, seemingly for the use of the deceased, in case he should desire to make a new reed when playing the flute in the next world. Mr. Woods wishes to know the difference between a recorder and a flute. The difference is one of name. The recorder changed its name to the flute and the common flute. In time it was forgotten that the flute had ever been called the recorder, and men began to wonder what sort of instrument a recorder was.¹ The change is traced and illustrated in the Paper which I have more than once mentioned.² You will also find there a reproduction of the engraving referred to by Mr. Woods, representing four players handling instruments of the recorder family.³

THE CHAIRMAN.—Before asking you to pass a vote of thanks, I must say a word on two remarks which have been made. Dr. Cammings alluded to the little ivory rods, or guides, that were placed on the flutes. I think they were used down to a very late date. I have a double-flute, made by Dalisbridge at the beginning of last century, which has these guides. As to the *aites*, I think in some instances undoubtedly it had a reed. The two old Egyptian specimens from the Fayum, which were brought over here by Flinders Petrie and shown, were the *basikos*, or double-flute; they must have been played with reeds made from split straw, they were too small to be played in any other way. The recorder is the descendant of the ancient *aites* of the Egyptians, still used by them. This is an absolutely open tube. The player holds it obliquely, putting it under his lips, closing part of the top of the tube with his lower lip, and then blowing down it. The tone is very much like that of the recorder. After a time the top was stopped entirely, and an arrangement with a thin wind-channel and edge was inserted, which is practically the same as we find in the fine organ pipes of the present day,

¹ *Ibid.*, pp. 145 to 148.² *Ibid.*, p. 150.³ *Ibid.*, p. 146.

I take it the recorder came from that ; later the tips of the player were left to do all, as in the flute with a mouth-hole that we use to-day. Some imagine the *flauto traverso* is practically a new instrument ; but in an old Spanish MS., dating, I think, about 1550, there is a man playing on a *flauto travesero*. I have very little doubt he was blowing through a hole in the side of the instrument.

May 23, 1900.

MR. A. H. D. PRENDERGAST,
IN THE CHAIR.

SIDE-LIGHTS ON TALLIS.

By R. R. TERRY.

Synopsis.—Church music in England before the Reformation.—Changes effected at the Reformation.—Tallis's share in music of both periods.—His Masses.—Comparison of his published with his unpublished works.—His position among his contemporaries.

ILLUSTRATIONS.—(1) A "Lamentation" for 3 voices; (2) "Benedictus" from a 4-part Mass; (3) "Agnus Dei" from a Mass "Salve Intemerata"; (4) "Gloria Patri" from a Motet; (5) "Aldelia" on a plain-chant theme.

The Council regret that, Mr. Terry having failed to supply them with any copy or notes of his address, they are reluctantly compelled simply to report that its delivery was followed by a brief discussion.

JUNE 26, 1901.

SIR FREDERICK BRIDGE, Vice-President,
IN THE CHAIR.

CORONATION MUSIC.

By J. S. SWINLOCK, B.A.

THE title of my paper refers specially to the Coronation services in Westminster Abbey, but a word or two may be said about the Coronation pageants connected with the passages of three sovereigns through the City of London: Elizabeth, James I., and Charles II. It was on Saturday, January 14, 1558, "about two of the clocke at afternoon," that Good Queen Bess marched from the Tower to proceed to Westminster. On a scaffold near Fenchurch stood a "roytie of instruments"; and at Gracious Street (now Greenchurch Street) we also read of "knde ayces of musike." A note, I may remind you, in those days merely meant sound or band. In Shakespeare's "King Henry IV." we read, "See if thou canst find out Beaulieu's noise," i.e., his street-band; and in "Macbeth," when in the Witches' scene, at the commencement of Act IV., King Duncan's General says, "Why sike that cauldron? and what noise is this?" there is the indication "Mauteboys." And of this very program of Queen Bess we read how, at the porch of St. Peter's, in Cheapside, or "Chape" as it was called, "The waites of the Cite gave a pleasant ayce with their instruments as the Queene's Mayoric did passe by"; also of a "roytie of singing children."

King James I. was entered in July, 1603, but owing to the plague "His Majestie's Triumphant Passage through His Honourable Cite of London" was deferred until March 15 of the following year. In the description of it we hear much more about music. To delight the Queen "with her own-country musike, nine trumpets and a kettle-drum did very sprightly and actively sound the Danish March." Then at one point we read, on the King's approach, of the ceasing of "sad and solenne musike having beaten the ayre all the time of his absence"; and of "a knde and excellent musike composed of violins." Also of nine boys, who, in that place, representing the Nine Muses "sang a dittie to their viols and other instruments"; of a song with choros; and of an anthem sung by the St. Paul's choir "to the musike of loud instruments."

I spoke just now of waits. Let me read you a short passage concerning them and their music from Hawkins's "History of Music":—

"The music of these men could scarcely be called a concert, for this obvious reason, that it had no variety of parts, nor consistence of different instruments: half-a-dozen of fiddlers would scrape Selinger's 'Hound,' or 'John, come kiss me,' or 'Old Stron the King,' with divisions, till themselves and their audience were tired, after which as many players on the hurdley would in the most harsh and discordant tones grate forth 'Green Sleeves,' 'Yellow Stockings,' 'Gillian of Croydon,' or some such common dance tune, &c.; and people thought it fine music."

John Ogilby, in his "Relation of His Majesty's Entertainment Passing through the City of London to his Coronation," published in 1661, besides drums beating "a jolly English March," also "the marches of several countries," or "turning their March to a Ballet," "notes" of sounding trumpets, wind-musick of six, also of twelve persons, a Band of Wayts, and a Body of Military Musick consisting of six trumpets and three drums, mentions various songs, one of which, sung by Concord, Love, and Truth, would not be inappropriate at the present moment. It commenced thus:—

Comes not here the King of Peace,
Who, the stars so long kenned,
From all Woes should us release
Converting Iron-times to Gold?

The names are given of the carpenters, painters, of the joiner and the carver, who prepared the triumphal arches, stages, &c.; in fact, "the parts," to quote Ogilby, "of which this entertainment consists, also the architect, Mr. Peter Mills, Surveyor of the City," and "another Person, who desires to have his name conceal'd." And then we read, "The Principal Parts of the Musick, by His Majesty's servants; all Composed by Matthew Lock Esq; Composer in Ordinary to his Majesty." Some of the instrumental music has been preserved, for the most part in the handwriting of the composer, in a folio volume which belonged to Charles II., bearing the royal arms on the cover. The music is written in score, but Dr. Cummings has part-books, which also belonged to the King, and which contain some of this music. The two movements which I am about to play will possibly be heard for the first time since they were performed in the streets of London two hundred and fifty-one years ago. The first, an "Ayre," was scored for sackbuts and cornets. The cornet—the predecessor of the oboe—was of powerful tone, though we are told by Mercurius that skilful players could soften and

modulate them (there were treble, tenor, and bass cornets) so that "nothing can be more sweet." The sackbut was a trumpet with a slide like the trombone. These instruments were also used in churches. "Charles I., when at Oxford, had service at the Cathedral with organs, sackbuts, recorders, cornets," &c., wrote Joseph Boschbank, or Boschenbank, minister and schoolmaster, in his "The Well-tun'd Organ; or an exercitation wherein this question is discuss'd, whether or no instrumental and organick musicke be lawfull in holy publick assemblies," published in 1660. The word "sackbut," by-the-way, occurs only once in Shakespeare's plays. In "Coriolanus," Act V., Scene 4, where in a public place a messenger comes to announce that Coriolanus and the ladies are "almost at point to enter" the city. "Why, hark you!" he says:—

The trumpets, sackbuts, psalteries, and fifes
Tobacco and cythars, and the shouting Romans
Make the sun dance.

The two movements which I am going to play are an "Ayre" and a "Saraband." The effect of the music on the piano-forte is of course feeble, but you may like to hear the kind of music which was performed. To give it as Locke wrote it is impossible. More than a hundred years ago, Burney, in his "Account of the musical performances in Westminster Abbey," in 1784, wrote:—

"In order to render this band as powerful and complete as possible it was determined to employ every species of instrument that was capable of producing grand effects in a great orchestra and spacious building. Among these the Sackbut or Double Trumpet was sought; but so many years had elapsed since it had been used in this Kingdom, that neither the instrument nor a performer on it could easily be found. It was, however, discovered that in his Majesty's private military band there were six musicians who played the three several species of sackbut—tenor, bass, and double-bass."

In fact, there were two sackbut players with their instruments in the procession at the Coronation of George III., only 25 years previously.

[Locke's "Ayre" and "Saraband" were then played by the Lecturer.]

Bad workmen are said to complain of their tools, but whatever the man may be they sometimes have to deal with unsatisfactory ones. I consider that I am in that position. Just allow me to show you by one or two illustrations how difficult it was to get accounts of the music performed at coronations even so late as the eighteenth century.

Agnes Strickland's "Lives of the Queens of England" would seem just the kind of book in which to find details concerning the music performed at the Coronation of Queen Anne. We do read of the choir bursting into the anthem, "The Queen shall rejoice in thy strength, O Lord," after the recognition; and, later on, how the choir "broke into a short but rejoicing anthem, 'Praise the Lord, O Jerusalem';" but nothing in either instance concerning the respective composers. Yet we are told exactly how the archbishop and bishops were occupied "while the [first] anthem was being sung," and in like manner how "the poets and poetsesses put on their concertos while it [i.e., the second] was being sung."

Again we read in the *County Journal*, of Saturday, October 14, 1737, that "the Ceremony of the Coronation [i.e., of George II.] was performed with the greatest Grandeur and attended with the most harmonious Entertainment of vocal and instrumental Musick." That is all. But there was another paper of the period from which I thought I might possibly glean some further information concerning this "harmonious Entertainment." The *London Gazette*, of October 10-14, has an account "published by Authority." I read therein of the Organ-Blower of the choir "singing an Anthem as their Majesties entered the church," and of "the singing of the Te Deum." There was no more about the music.

Of the Anthems sung at the Coronations of Elizabeth and James I., I can find no details. "The first Anthem," says Thomas Tudway in the great Collection which he made for Lord Harley, "date from Elizabeth, for it was she who appointed the daily service of our Church to be read and sung in English. Tallis and Byrd were the men who set to work to provide music, and Mr. Marley, a great Artist in lute, cittern and such like unlearned of figurative music that ever was." The sentiment of the last sentence is superior to the language in which it is couched.

The Tomkins family was a remarkable one. Thomas Tomkins, Precentor of the Choir of Gloucester, had six sons—Paragrinus, Nathaniel, Nicolas, one of the gentlemen of the pinner's chamber to Charles I.; Thomas; John, organist of King's College, Cambridge, and afterwards of St. Paul's; and Oliver, household musician to the king, and, according to Anthony à Wood, organist of Salisbury Cathedral. Butler, in his "Principles of Music," published in 1696, calls Thomas and John *accompani per Matrimonium*. Thomas studied under Byrd. It is an interesting fact that one of his anthems was scored by Blow and again by Purcell; both manuscripts are in the Fitzwilliam Museum, Cambridge. Tomkins wrote the anthem "O Lord, grant the King a long life," for the Coronation of Charles I. There is no reference to this either in Geese, or Brown and

Stratton. It was for four voices, "soprano, first and second, counter-tenor, bass, and organ." It is to be found in "*Musica Deo Sacra*," or, *Musick dedicated to the Honour and Service of God*," published in 1664 and again in 1668. Henry Lawes wrote "*Zadok the Priest*" for the Coronation of Charles II., but I have found no trace of it, nor of Henry Cooke's "*Behold, O God*," which was written for the same event. Of Dr. Blow, predecessor and successor of Purcell as organist of Westminster Abbey, I merely mention that for James II.'s Coronation he wrote "*God speaks sometimes in visions*," and "*Behold, O God, our Defender*." The latter will now be sung. It is a full anthem, but I am venturing to give it with the few singers you see on the platform, so that you may hear music of which, so far as I am aware, there is no modern reprint. I may just add that it was for the Coronation of James II. that Purcell wrote his anthems "*I was glad*," and "*My heart is inditing*." Jeremiah Clarke, born, it is supposed, in 1669, studied under Blow at the Chapel Royal. Dictionaries have much to say about his suicide—the cause of it and the exact date on which it occurred; yet, curiously, they do not refer to the statement made by Warren, on the authority of a contemporary MS. in the Genium Library, that Clarke's anthem "*Praise the Lord, O Jerusalem*" was written for the Coronation of Queen Anne. Not only do Burney, Hawkins, and the Dictionary of Musicians (Grove) not mention this, but there is nothing about it even in the Dictionary of National Biography. Hawkins particularly refers to the anthem as one of the most celebrated, while Burney describes it as "extremely natural and agreeable, and as modern and graceful as the gravity of the choral service will, with propriety, allow."

William Turner was the son of Charles Turner, cook of Pembroke College, Oxford. There is practically nothing to say about him as a man. He died in his eighty-ninth year, and left a curious will in which he bequeathed all his property to his wife, except one shilling to each of his five children; the wife, however, to whom he had been married nearly seventy years, died four days before him. What became of the property or of four of the children I cannot say. The daughter, Ann, married John Robinson, assistant organist to Dr. Croft at Westminster, and sole organist at the Doctor's death; both are buried in the same grave. You will now hear Turner's anthem "*The Queen shall rejoice*," written for the Coronation of Queen Anne, which took place on April 23, 1702—the 158th anniversary, by the way, of Shakespeare's birthday.

William Croft, born in 1677 or 1678, studied under Dr. Blow, whom, in 1708, he succeeded as organist of Westminster

Abbey. Some of his biographers state that his death was due to an illness contracted at the Coronation of George II., but, as stated in Grove, Croft died August 14, 1707, whereas the king was only crowned on the 2d of the following October. Grove, however, says nothing about the anthem "The Lord is a sun and a shield," which he wrote for the Coronation of George I.

I am going to play you the opening chorus, which I have written out for pianoforte. I want just to show you the solid, Handelian style of the music. The Coronation took place on October 29, 1714. Handel, it may be noted, came to England in 1700, and his *Utrecht Te Deum* had already been performed at St. Paul's in 1713.

The scanty references to coronation music, to which I referred, are all the more astonishing in the case of the Coronation of George II., for which Handel wrote his four great anthems: "Zadok the Priest," "Let thy hand be strengthened," "The King shall rejoice," and "My heart is inclining." More detailed notice would have been welcome, seeing that authorities are not quite agreed as to whether the four were actually sung. In "The Ceremonial of the Coronation of his Most Sacred Majesty King George the Second, and of his Royal Consort, Queen Caroline," published at Dublin in 1707, the first, third and fourth are mentioned, but not the second, "Let thy hand be strengthened." Hence Dr. Crotch and Dr. Rimbaud, on the strength of this account, concluded that this second anthem was not sung, and stated so in the preface to those coronation anthems in the Handel Society edition. Dr. Chrysander, however, found all four mentioned in a detailed account of the Coronation, published at Hanover in 1728. He is of opinion that the Dublin account was published before the Coronation, and merely gave an account of the usual form of service at English coronations.

Handel's well-known Coronation Anthems need no description. I have, however, just one or two things to say about them. You will all remember that when Dr. Gibson, Bishop of London, sent to the composer the texts for the anthems, the latter said, "I have well read my Bible, and will choose for myself." This remark brings to my mind another composer mentioned by Matthæson, who selected Bible words. When George, Elector of Hanover, was about to come to England as king, Farinelli, uncle of the famous singer, knowing that Handel had deserted the Elector, presented to the latter a setting of the words "Lord remember me when thou comest into thy kingdom," thus hinting at the post he would like to occupy. The Elector, we are told, was greatly displeased at this—to use a mild word—bad taste thus shown.

Of the Handel Anthems I will merely remind you that the composer made use of portions of them in his oratorios "Esther," "Deborah," and the "Occasional Oratorio."

William Boyce was born in 1702, the same year as Anna, and was placed under Charles King—who, by-the-way, married Ann, sister of Jeremiah Clarke—and studied afterwards under Dr. Papouch. According to the table of contents of Warren's edition of Boyce's "Cathedral Music," the composer wrote no fewer than eight anthems for the Coronation of George III. From the catalogue of Boyce's manuscripts in the Bodleian Library, drawn up by Mr. T. W. Topham, and given in a long notice of Boyce by Mr. F. G. Edwards (*Musical Times*, July, 1901), we read that the "table of contents on a few of the volumes shows that the original music for the service was cut down to about half the projected length." It is said that he declined writing music to the words "Zadok the Priest," on the ground that it would be presumption in him to attempt it after Handel."

Thomas Attwood, born 1763, was the son of a coal merchant—not the first one, by-the-way, that we read of coals in connection with music; just over half a century before the birth of Attwood died the famous Thomas Britton—

"Down'd to small-coal, yet to arts ally'd"

whose concerts in the room over his coal-cellar in Aylesbury Street, Clarkeswell Green, were so famous. There Handel would often entertain the company by playing the harpsichord. Attwood was the pupil of Mozart, while nearly half a century after the death of that composer he made the acquaintance of Mendelssohn, who visited him at his house in Norwood. This is rather a roundabout way of saying that he lived to a good age (he died in his 74th year), but it helps one to remember the period at which he flourished and the strong influence exerted over him in his early days. The sheets containing the harmony exercises, with Mozart's corrections and comments, are treasures now in the possession of Sir F. Budge. Attwood wrote the anthems "I was glad" for the Coronation of George IV., and "O Lord, grant the King a long life," for that of William IV. The full scores of both were published. In the dedication to the first king he says:—

"My pretensions, Sir, are humble, but whatever merit may be ascribed to this or to any of my compositions is wholly attributable to the fostering protection and princely munificence which Your Majesty condescended to bestow upon me in my youth, and which alone enabled me to study the sciences I profess, under that 'prodigy of genius,' the immortal Mozart."

George IV., when Prince of Wales, heard Aitwood as a youth perform on the harpsichord at Buckingham Palace, and was so struck by his talent that he assigned a sum of money from his privy purse to enable the lad to go to Italy to pursue his studies. Hence the reference to the king's "pennsely munificence."

And one sentence may be quoted from the later dedication:—

"But, Sir, flattering to me as is such Gracious Patronage, I cannot but look forward with still more exalting feelings to the benefit likely to follow therefrom to the Musical art generally; for when it is seen that efforts so humble as mine are thought worthy of Your Majesty's notice, native talents far superior to any that I can boast will be stimulated to exertion, and prove the beneficial effects of Royal Encouragement."

In "O Lord, grant the King," "Rule, Britannia" is introduced into the opening symphony; while "I was glad" opens with "God save the King." I had intended speaking of the various ways in which our National Anthem has been harmonised by Arne, Aitwood, and recently by Professor Stanford and Dr. Elgar, but I felt that my paper was getting unduly long. Of Aitwood I have only to add that he composed an anthem for the Coronation of Good Queen Victoria, but passed away before it was completed.

Of the music of the coming Coronation I have but a very few words to say by way of conclusion. It has been published, and it contains a pleasant and appropriate commixture of old masters, Tallis, Gibbons, and Purcell; of dead composers of the nineteenth century, S. S. Wesley, Sullivan, and Stainer; and representative living composers—Sir Frederick Bridge (Hommage Anthem), Sir Walter Parratt ("Be strong and play the man"), Sir Hubert Parry ("I was glad"), and Professor Stanford ("Te Deum Laudamus"); while Handel is represented by his "Zadok the Priest," as imperative of a Coronation as his "Messiah" at Christmaside.

AYRE.





THE QUEEN SHALL REJOYCE.

W. TOWERS.

The Queen shall re-joyce, . . . shall re-joy - ce in thy
 The Queen shall re-joyce, . . . shall re-joy - ce in thy
 The Queen shall re-joyce, . . . the Queen shall re-joy
 The Queen shall re-joyce, shall re-joy - ce in thy

strength, in thy strength, O . . . Lord,
 strength, in thy strength, O . . . Lord, ex-cel-ling glad shall she
 in thy strength, O . . . Lord, ex-cel-ling glad shall she be, shall she
 strength, in thy strength, O . . . Lord, ex-cel-ling

ex-cel-ling glad shall she be of thy ad - ven-ture.
 be of thy ad - ven-ture, of thy ad - ven-ture
 be of thy ad - ven-ture, of thy ad - ven-ture.
 glad shall she be, shall she be of thy ad - ven-ture. Thus shalt pre-

Then shalt pre - vent her with the blessing of goodness,
 Then shalt pre - vent her, pre - vent her with the blessing of goodness,
 Then shalt pre - vent her, pre - vent her with the blessing of goodness, and shalt
 pre - vent her, pre - vent her with the blessing of. Blessing of goodness, and shalt

and shalt set . . a crown, shalt set . . a
 and shalt set . . a crown, shalt set . . a
 set . . a crown, shalt set . . shalt set . . a
 set . . a crown, shalt set . . a crown, a

crown of pure gold up - on her. Head, Her hon - our is
 crown of pure gold up - on her. Head, Her
 crown of pure gold up - on her Head, Her
 crown of pure gold up - on her Head, Her hon - our is

great, great, her hon - our is great, is great in thy . . ad -
 her - our is great, her hon - our is great, is great in thy ad -
 her - our is great, her hon - our is great, is great in thy . . ad -
 great, her hon - our is great, is great, is great in thy ad -

- nation, glo - ry and great worship, great worship shall thou lay, great
 - ra - tion, glo - ry and great worship, great worship shall thou
 - ra - tion, glo - ry and great
 - ra - tion, glo - ry

wor - ship shall thou lay, . . great wor - ship shall thou lay,
 lay . . up - on her, great wor - ship shall thou lay, . .
 wor - ship, great wor - ship shall thou lay . . up - on . . her,
 and great wor - ship, great wor - ship shall thou lay.



shall thou lay up - on her. For thou shalt give her, shall
 shall thou lay up - on her. For thou shalt give her, shall
 shall thou lay up - on her. For thou shalt give her, shall
 shall thou lay up - on her. For thou shalt



give her ex - cel - lent - ing, ex - cel - lent - ing in - fi - ni - ty,
 give her ex - cel - lent - ing, ex - cel - lent - ing in - fi - ni - ty,
 give her ex - cel - lent - ing, ex - cel - lent - ing in - fi - ni - ty,
 give her ex - cel - lent - ing, ex - cel - lent - ing in - fi - ni - ty,



and make her glad, make her
 and make her glad, make her glad
 and make her glad, make her glad with joy,
 and make her

gla . . . d with the joy, with the joy of thy
 . d with the joy, make her glad with the joy, with the
 . . make her gla . . . d with the joy, with the
 glad, make her gla . . . d with the

coronation the joy, . . . with the
 joy, . . . with the joy, . . . with the
 joy, the joy, . . . with the
 joy, . . . with the joy, . . .

joy . . . of thy cor - on - a - tion, with the
 joy . . . of thy cor - on - a - tion, with the
 joy, the joy of thy cor - on - a - tion, with the
 . . . with the joy of thy cor - on - a - tion, with the

Joy, with the joy of thy ex-ten-sion -
 joy, the joy of thy ex-ten-sion -
 joy of thy ex-ten-sion, ex-ten-sion -
 joy, with the joy of thy ex-ten-sion -

ex-ten-sion. Hal - le - lu - jah, Hal - le - lu - jah,
 ex-ten-sion. Hal - le - lu - jah, Hal - le - lu - jah,
 ex-ten-sion. Hal - le - lu - jah, Hal - le - lu - jah,
 ex-ten-sion. Hal - le - lu - jah, Hal - le - lu - jah,

Hal - le - lu - jah, Hal - le - lu - jah, Hal - le - lu - jah,
 Hal - le - lu - jah, Hal - le - lu - jah, Hal - le - lu - jah,
 Hal - le - lu - jah, Hal - le - lu - jah, Hal - le - lu - jah,
 Hal - le - lu - jah, Hal - le - lu - jah, Hal - le - lu - jah,

right thing and the thing that should recommend itself to the judgment of all musicians, I was of course very much bound by the exigencies of the Service, and by the fact that the Book of the Service is, as it were, placed in one's hands as a sort of *libretto* to which one has to select the music. The words are not to be chosen by the musician, but are entirely selected by the ecclesiastical authorities. If anything I have done merits with approbation (and the few kind words that Mr. Shedlock has said seem to indicate that it does) I shall be glad. These old anthems speak to us in old-fashioned tones, but they are very interesting to hear. I am very sorry Mr. Shedlock has not been able to unearth the one said to have been written by Henry Lawes for Charles II. It seems strange that a man should have lived all through the troubles of the Civil War and have lived just long enough to have written that anthem, remembering how much he and his brother had undergone for the cause of Charles I. It is probable he was then lying almost next door to young Henry Percell, who was then four or five years old. I have no doubt whatever that calling attention to the absence of the MS. will, one of these days, result in its turning up somewhere. With regard to the performance of those four anthems of Handel, I cannot speak of many records to which I have referred; I do not know whether they did the three or the four, but I do not think they would do anything that was not printed in the Official Book—precedents are very strong in this matter. I should like to give an explanation with regard to the coming Coronation. Some of you may have regretted that Attwood's "I was glad" was not included. I did originally intend to include it, but one or two reasons weighed with me in omitting it. I should like to mention this, because I am inclined to think that the anthem which Sir Hubert Parry has written for this will make a great effect, and make everyone who knows what music is think of it as a great, noble, and novel setting of the words. The King enters during the singing of this anthem. There is no Coronation March at this point. The King enters the Abbey appropriately to those words which have been sung at this point as far back as any records can be discovered, "I was glad when they said unto me." Percell set them and Attwood set them. The Westminster boys, being one of the oldest public schools in the kingdom, have the constitutional right to greet the Sovereign when he comes in with a little Latin phrase. They sing *Prælo Regibus Alexander!* and then, when the King appears, *Prælo Rex Edwardus!* *Prælo!* *Prælo!* *Prælo!* This they have been accustomed to shout indiscriminately; and it seemed to me when I was thinking about this introductory anthem that something ought to be done to give an appropriate prominence to this, and not to interfere with the progress of the anthem, because if all these sixty boys

up in the triforium shouted this Latin phrase in the midst of the words "Pray for the peace of Jerusalem," the effect appeared to me almost irresistible. I conceived the idea that one might make a break in the anthem, because they are not supposed to say these words till the King enters the choir. As a matter of fact, I saw from a private record of Sir George Smart's that the usual order had been departed from at the last Coronation. He makes a note that, by permission of the Bishop of London, the anthem "I was glad" did not begin till the Queen (Victoria) had entered the choir. That was a departure from the old rule, and it seemed to me an unfortunate thing that the anthem should be postponed. So I suggested that such a treatment as I have indicated might be adopted, and that we might make a sort of break in the anthem, and then, possibly while the organist extemporises, these Verses might be shouted. The outcome of that you will see in Sir Hubert Parry's anthem. I can only say that when I mentioned it to Sir Hubert Parry he astonished me by saying, "Oh, that has been done before." He told me there is some record of a similar thing having been done when the Elector of Saxony, Friedrich August II., was crowned King of Poland. The result is that in the anthem which Sir Hubert Parry has written there is a break followed by a tremendous burst on some trumpets. At this moment there is a little phrase that has the character of an old tune I used to hear in Rochester on Hot Cross Bun days—



and that is followed by another phrase—



I think he has made an admirable thing of that. I dare say, in the excitement of the moment, the boys will not be particular to a note or two; I shall not mind what it is so long as it is a good one. I am sorry to have gone into all these particulars, but I only wished to justify my opinion of Attwood's anthem. I yield to none in my esteem of Attwood; but that is my real reason. When the King suggested that Sir Hubert

should do some music for the Service, I suggested that he should set this anthem, and I think the result is a fine contribution to Coronation music. I was bound down by the rule that there was to be no repetition in the Te Deum or the Credo, and the music was to be simple and dignified; it was not to prolong the ceremony, and was only to be performed when something was going on. That is the old custom of the Coronation: the King does not come to sit in his crown and listen to a lot of music, though composers abroad seem to think that he does. The music is meant to accompany a great function. It is a great ceremony, and this is the incidental music to fit it. I have been as terse as I could in my own work, but taking into consideration these limits, I trust that you and, I hope, posterity, will now know something more than they have done before, because by the enterprise of Messrs. Novello the whole Book Service has been published from beginning to end. No such publication exists for any previous Coronation; and I trust that every library in the country will take the trouble to preserve it; and then my good or evil deeds will be kept alive in the memory of the country.

Dr. COWSWORTH.—It has been a very interesting paper for all of us, particularly so our friend Mr. Shedlock is one of those who are careful about facts. That is not always the case, as you have found in his narration. Sometimes history is not to be relied on. In a current musical paper I find a most absurd statement chiefly about Coronation music: "For the Coronation of King James II. Purcell wrote two anthems, 'I was glad' and 'My heart is rejoicing,' and also on various occasions songs of welcome." There is, however, no record of any interview between the King and the composer Purcell. Several of three parts were dedicated to James, and the composer states that "they are the immediate result of your Majesty's Royall favour and benignity to me, who have made me what I am." Now as these sonatas were published in the year 1683, and Charles II. was then the reigning monarch, it is rather difficult to understand how Purcell should dedicate them to James II. That is the sort of thing we have put before us as history. This no doubt will some day be fished up and brought before a future Musical Association as indisputable evidence that Purcell did so and so. I was delighted to hear the music of dear old Matthew Locke—I feel I owe an apology to the lecturer for not having supplied some of the music. He found the volume in the British Museum in the handwriting of Matthew Locke. The curious thing is that I have all the part-books in the handwriting of Matthew Locke, with Charles II.'s arms on them, and my part-books have one movement more than the score. The account which Sir Frederick Bridge has given of the

music that is to be performed in the Abbey at the Coronation is very interesting. I am bound to say that I think we shall have music more sublime and appropriate than has ever obtained in the Abbey. I am not one to find fault with our predecessors, but I think you will agree that some of the old music that we heard was not particularly expressive. Those little repetitions answering one another may be very well as exercises, but they are not very edifying. I possess a copy of that anthem "Praise the Lord, O Jerusalem," if not in Clarke's handwriting, in a contemporary hand, and it is set to Latin words. I am wondering whether there has ever been any part of the ceremony performed in Latin. Perhaps that anthem was used at the Coronation of James II., and sung in Latin. We know James much preferred services in Latin. I have been delighted with Mr. Shedlock's lecture, because it will suggest to me many directions in which to search for music: I hope I shall find some.

MR. SEYMOUR.—I noticed that Mr. Shedlock spoke of the cornets used in the Services at the time of the Restoration as a kind of oboe. I do not think that is historically correct so far as the instrument is concerned. It was a curved wooden instrument with a capped mouthpiece, and not of the reed type.

MR. SEYMOUR.—I took the information from the description Hawkins gives.

MR. SEYMOUR.—Then I think Hawkins is in error. Our so-called cornet was identical with the German "sackb," and, like other instruments of the period, they were made in sets. The cornets were frequently used to play the psalm-tunes in churches.

DR. COMPTON.—I think Mr. Shedlock's remark requires more elucidation. I very much doubt if the instrument used by Matthew Locke was an instrument with a cap. The parts in the Services would be quite impossible on an instrument with a cap. I do not think it was a reed instrument; I rather think it was a kind of flageolet. You will find there are some accounts belonging to Westminster Abbey in which there are payments for a certain term of years to cornet-players to play the boys' part in the Services.

THE CHAIRMAN.—It has always struck me as strange that those noble parts should be played on the cornets. I have heard them played at a lecture, and the effect was hideous. They played some florid things, but they were awfully difficult to manipulate. The kind of criticism one sometimes meets is certainly amusing. I remember being scolded by a musical critic for the harmonies I had introduced into the National Anthem. He did not know they were Artwood's own parts.

A vote of thanks to Mr. Shedlock was passed unanimously.

APPENDIX.

List of Contents for the last three years of the publications of the International Musical Society.

(E = English; F = French; G = German; I = Italian.)

ZEITSCHRIFT (Monthly Journal).

In addition to the Leading Articles specified below, each number (about forty pages five) contains copious *polyglot* information under the following heads:—(a) General news, (b) News connected with *Academical Institutions*, (c) *Current Lectures*, (d) *Performances of music*, (e) *Proceedings of Branches*, (f) *Queries and Answers*, (g) *Book reviews*, (h) *Lists* (complete) of current music articles from Journals, (i) *Music reviews*. The whole of the contents is original matter, and it embraces all countries.

FIRST YEAR.

PAGE 1-2 OCTOBER—NOVEMBER, 1899

Introductory (G)—O. Felscher (Berlin).
Music in England (E)—C. Maclean (London).
Bayreuth 1899 Festspiel (G)—W. Kiesel (Berlin).
The Musical Album (G)—M. Seifert (Berlin).
An old Lane-book (G)—J. Wolf (Berlin).

PAGE 3. DECEMBER, 1899.

Can the remains of ancient Greek music be now performed? (G)—O. Felscher (Berlin).
Musical life in Russia (G)—N. Fiedler (Petersburg).
Triumphant at the Moscow Theatre (F)—L. Gaubert (Paris).
Review of Desobry's "Études de science musicale" (F)—M. Lussy (Paris).

PAGE 4 JANUARY, 1900.

Vocal teaching in the higher schools (G)—E. Boehm (Berlin).
First complete List of Members.

PAGE 5 FEBRUARY, 1900.

Concert-music for the Concert-room (G)—O. G. Sonneck (New York).
The efficacy of collected works of Handel and Bach (G)—M. Seifert (Berlin).
The list of Wagner's Services (G)—J. Rebe (Berlin).
Mozart's "Fremdman-Gesellschaft" (G)—E. Vorpil (Vienna).

PAGE 6 MARCH, 1900.

Letter from Florence (I)—E. del Valle de Paz (Florence).
Music in England (E)—C. Maclean (London).
The Bach Christenbaum and its reconstruction (G)—O. Felscher (Berlin).
The Pittsburg Vernal Book (G)—M. Seifert (Berlin).

PAGE 7. APRIL, 1900.

Music in Rome (G)—F. Spira (Rome).
Concerts in Paris (F)—M. Chailley (Paris).

PART I. MAY, 1900.

Vocal Teaching (F.)—Léon Ternoy, Harroth (Geneva).
 Concerts in Vienna (G.)—R. Birchfield (Vienna).
 Popular concerts and Music over-production (G.)—G. Müsser (Berlin).
 The promoters of Church music in Moscow (G.)—N. Fiedlson (Petersburg).
 Second complete List of Members.

PART II. JUNE, 1900.

Saint-Saëns as author (F.)—A. Frenay (Paris).
 Music in Paris (F.)—M. Chausson (Paris).
 Opera in Vienna (G.)—R. Birchfield (Vienna).
 Vocal teaching in grammar-schools (G.)—R. Starke (Dresden).

PART III. JULY, 1900.

J. P. E. Hartmann (G.)—W. Bihlwald (Copenhagen).
 Music in Spain (F.)—E. L. Chénari (Madrid).
 Popular Concerts (G.)—R. Levysohn (Copenhagen).
 14th Congress of the Alpine, Teut. Music Union (G.)—H. Goldschmidt (Berlin).
 Chamber-music Festival in Stuttgart (G.)—K. Grunsky (Stuttgart).
 Handel Festival in Bonn (G.)—M. Seiffert (Berlin).

PART IV. AUGUST, 1900.

Mauré Alto in English Music (G.)—A. H. D. Frobenius (London).
 Musical Congress of the Paris Exhibition (F.)—M. Chausson (Paris).
 Tenth-century-Vernacular Festival (G.)—W. H. F. Schemmel-Nigam (Rotterdam).
 Music Festival at Zürich (G.)—K. Hof (Basel).
 The 14th German Music Festival (G.)—T. Kottberg (Munich).
 Leipzig Festival at Pymont (G.)—G. R. Knorr (Lips).
 Bruckner's Mass in F minor (G.)—E. Grunsky (Stuttgart).

PART V. SEPTEMBER, 1900.

Opera in Russia (G.)—N. Fiedlson (Petersburg).
 Music in England (G.)—C. Maden (London).
 The Music of the Occidentarys. France. Flay (E.)—A. H. D. Frobenius (London).
 The Congress of Musical History (F.)—J. G. Profphonse (Paris).
 On Musical Magazine Literature (G.)—O. G. Sonneck (New York).

Total—408 pages.*

SECOND YEAR.

PART I. OCTOBER, 1900.

Concerts in Russia (G.)—N. Fiedlson (Petersburg).
 Music in Stockholm (G.)—A. Lindgren (Stockholm).
 Music in Spain (F.)—E. L. Chénari (Madrid).
 The Saxonic ancient and modern (F.)—E. Frenay (Paris).
 Catalogue of Handel performances, 1899-1900 (G.)—E. Krumpholtz (Hamburg).

PART II. NOVEMBER, 1900.

The English Provincial Festivals (E.)—J. A. Fuller-Maitland (London).
 Music in the Paris Exhibition (F.)—M. Chausson (Paris).
 Leipzig Symphony Concerts, 1899-1900 (G.)—E. Schulz (Leipzig).
 Musical overhauling in children (G.)—C. H. Richter (Danzon).

* Fully indexed.

PART 3. DECEMBER, 1900.

The Choral use of the Missa (E.)—W. Barclay Square (London).
A collection of National Hymns (G.)—H. Albert (Berlin).
Robert Radtke (G.)—G. Beckmann (Köln).

PART 4. JANUARY, 1901.

On musical educational institutions (E.)—K. Maerkl (Vienna).
The musical season in Paris (E.)—L. Emery (Paris).

PART 5. FEBRUARY, 1901.

The composer of the *Marchellina* (F.)—J. Thirion (Paris).
Hebrew or Native language? (E.)—G. G. Bennett (New York).
Music in Spain (F.)—E. L. Chavarr (Madrid).
Musical life in Rome (G.)—F. Sporo (Rome).
Concerts in Paris (F.)—R. Chaussegny (Paris).

PART 6. MARCH, 1901.

A simplification of accidentals and key-signatures (G.)—G. Capellen (Düsseldorf).
Giuseppe Verdi (G.)—H. Albert (Berlin).

PART 7. APRIL, 1901.

Music as an Impression (G.)—F. Rosenfeld (Vienna).
Registration of Music Teachers in England (E.)—J. W. Stobsonham (Manchester).

PART 8. MAY, 1901.

Notice regarding Supplement Volumes of the *J. M. G.*
Old music in old gardens (G.)—G. G. Bennett (New York).
An Essay on Henry Purcell (F.)—W. Barclay Square (London).
Sir John Stainer (E.)—C. Mackinnon (London).
Supplement to simplification of accidentals, &c. (G.)—G. Capellen (Düsseldorf).

PART 9. JUNE, 1901.

Stas von Bülow's Nervous (E.)—C. A. Barry (London).
Music and the teaching profession (G.)—G. Fritschel (Berlin).
Sovets (G.)—H. H. Stephens (Leipzig).

PART 10. JULY, 1901.

Women and the musical education of the young (G.)—Louise Müller (Düsseldorf).
Stanford's New Opera (E.)—C. Mackinnon (London).
Theatres and Concerts in Paris (E.)—M. Chaussegny (Paris).
37th Congress of the Alliance Des Musiciens Français (G.)—F. Swan (Hendelberg).

PART 11. AUGUST, 1901.

Musical Works Books (G.)—H. Fiedler (Petersburg).
Bach Festival at Bethlehem, Pennsylvania (E.)—A. A. Stanley (Acc. Ark.)
Music in London (E.)—C. Mackinnon (London).

PART 12. SEPTEMBER, 1901.

Bayreuth Impressions (G.)—M. Kosh (Grodna).
The London Opera Season (E.)—J. A. Fuller-Maitland (London).
A Traveller's view from Delphi (E.)—C. F. Abby-Williams (London).

Total—476 pages.*

* Fifty bound.

THIRD YEAR.

PART 1. OCTOBER, 1902.

Wagner Documenta (G.)—L. Schenck (Dresden).
Wagner's letter to Stiehl (G.)—G. Wagner (Berlin).
Music in Rome, 1901 (G.)—F. Spitta (Hann).
Music in Stockholm, 1901 (G.)—A. Lindgren (Stockholm).

PART 2. NOVEMBER, 1902.

Fr. Chrysander (G.)—G. Fischer (Berlin).
The Lady Peverel (E.)—J. A. Fuller-Maitland (London).
Stanitz's letter to Frederick William II. (G.)—G. Thonert (Berlin).

PART 3. DECEMBER, 1902.

Music in Gymnasium Schools (G.)—H. Abert (Berlin).
Weker correspondence (G.)—L. Schenck (Dresden).
Orchestral and Choral Defence (E.)—J. E. Berland (London).

PART 4. JANUARY, 1903.

Music in North of England (E.)—Ernest Newman (Liverpool).
Reverend's Ossagea (E.)—L. Dreyer (Paris).
Berlin Mozart Festival (G.)—G. Thonert (Berlin).
Method of Madame Lake Kusan (G.)—L. Flamm (Hann).

PART 5. FEBRUARY, 1903.

Hermann Geric (G.)—K. Issel (Hirsch).
Miss Anna Kuhn's Lindber (G.)—E. G. Jensen (Hannover).
Florence Dierckx (E.)—C. Maclean (London).
Music in Paris (F.)—M. Channing (Paris).

PART 6. MARCH, 1903.

Yorkshire Choral Society (E.)—H. Thompson (Leeds).
The "Meisterlanger" in Rome (G.)—F. Spitta (Hann).
Pedro's Los Filasos (F.)—F. S. Davis (Barcelona).

PART 7. APRIL, 1903.

Music on Mount (E.)—R. Kretschmar (Leipzig).
On the Flauto (G.)—A. Richter Spitz (Hann).
Recent Novelties in London (E.)—F. Gilbert Webb (London).
Concerts throughout France (F.)—J. G. Fiedler (Paris).

PART 8. MAY, 1903.

Tonality in Piano-Teaching (G.)—Tony Sandmann (Hamburg).
Three Forgotten Writers by Schubert (E.)—W. Dörcher (Leeds).
Julius Hay's Vocal Method (E.)—F. X. Adams (New York).

PART 9. JUNE, 1903.

Four New Book Issues (G.)—F. Schenck (Stargard).
Music in Paris (F.)—L. Dörcher (Paris).

PART 10. JULY, 1903.

The Symphony in France (F.)—J. Thonert (Paris).

PART 11. AUGUST, 1903.

Bonaparte's Music Policy (G.)—G. Fischer (Berlin).
Regarding Musical Criticism (E.)—F. Gilbert Webb (London).
A new letter of Berlioz (F.)—J. G. Fiedler (Paris).

PART 11. SEPTEMBER, 1901.

A Topographical Dictionary of Music History (F.)—J. G. Prof-
essor (Paris).

Bayreuth, 1901 (G.)—A. Mayer-Salbach (Berlin).

The London Opera Season (E.)—M. Barclay Square (London).

"Palais des Arts" and "Der Wald" (E.)—C. Marten (London).

Total—212 pages.*

SAMMELBANDE (Quarterly Magazine).

FIRST YEAR.

PART 1. OCTOBER—DECEMBER, 1900.

A chapter on comparative music-science (G.)—O. Fischer (Berlin).

Arnold's Church Music (G.)—K. Kewerhan (Düsseldorf).

The music theory of Johannes de Guisno (G.)—J. Wolf (Berlin).

On Handel's chamber-works (G.)—M. Schfert (Berlin).

Musikgilde in Friedland (G.)—M. Schfert (Berlin).

Dalry and his time (G.)—J. Wolf (Berlin).

PART 2. JANUARY—MARCH, 1901.

Swedish musical history, 1150-1550 (G.)—T. Nordin (Lund).

On Schütz (G.)—M. Schfert (Berlin).

Handing Opera Orchestra, 1875-1910 (G.)—W. Knecht (Berlin).

W. F. Bach's remains in Darmstadt (G.)—H. Nagel (Darmstadt).

Beethoven's Rondo in B-flat (G.)—E. Mandycorvsky (Vienna).

On Propaganda music (G.)—H. Holmeyer (Frankfurt).

An unknown music collection (G.)—H. Boshart (Vienna).

PART 3. APRIL—JUNE, 1901.

The new Anatomicon-hall at Grythyolmen (G.)—H. Albert (Berlin).

Studies on Icelandic Music (G.)—A. Hanserich (Copenhagen).

Catholic musical reforms of the 16th century (G.)—F. Friedl (Munich).

Samuel and Gottfried Schells (G.)—A. Werns (Hilversum).

Green as Opera-composer (G.)—A. Mayer-Salbach (Strasbourg).

J. V. Meier's Sammlungen (G.)—J. Dolm (Berlin).

PART 4. JULY—SEPTEMBER, 1901.

History of Schmination (G.)—O. Lange (Breslau).

Furzei and Niccolò Matar (E.)—J. Friedland Bridge.

Memorial, the Treasures of the Capra (G.)—E. Korpman (Tiflis).

Revival of musical life in Italy (G.)—O. G. Zeman (New York).

Bach's Matthew Passion and the Protestant faith (G.)—F. Bachmann (Berlin).

Six Times Cello (G.)—J. Wolf (Berlin).

Notes on Spiritual and Pagan (G.)—L. Geyer (Berlin).

Total—487 pages.*

* Fully indexed.

SECOND YEAR.

PART 1. OCTOBER—DECEMBER, 1900.

- Dances and the various settings of "O Rosa Bella." (E.)—Cecil
 Slatton (London).
 Italian opera-orchestras in the 17th Century (G.)—H. Goldschmidt
 (Berlin).
 M. Wackens and the Musical College at Hamburg (G.)—H. Seltzer
 (Berlin).
 The old Bohemian Conservatory School (E.)—O. Schmidt (Prague).
 The Five-line bar in popular Finnish music (E.)—L. Krüger
 (Helsingfors).
 History of Music in Finland (E.)—H. Fuhrer (Berlin).
 From an old library (G.)—G. Fischer and R. Burckhard (Berlin).
 Treat Codices (G.)—G. Adler and G. Keller (Vienna), and J. Wolf (Berlin).

PART 2. JANUARY—MARCH, 1901.

- Origin of the organ of the westmen (E.)—Karlens Schöleringer (London).
 The Elche Festival (E.)—E. Felsch (Münster).
 Three Chivalric-compositions wrongly ascribed to Bach (G.)—E. Bach-
 meyer (Dresden).
 Music in Russia in the first half of the 19th Century (G.)—E.
 Fuchsner (Petersburg).
 Settings of the Motet *Miserere* (E.)—C. B. Edgar (London).
 The new "Choralbuch" of R. v. Liliencron (G.)—P. M. Sandrock
 (Potsdam).
 The Treat Codices (E.)—G. Adler (Vienna).

PART 3. APRIL—JUNE, 1901.

- An unsigned Letter by Puffas (June 1001) on music (G.)—H. Abert
 (Berlin).
 Notes on an undescribed Collection of English 15th Century Music
 (E.)—W. Barclay Squire (London).
 J. R. Ahle's *Harmonographischer Stammbaum* (E.)—J. Wolf (Berlin).
 Johann Christian Bach (G.)—M. Schwarz (Berlin).
 J. P. E. Hartmann (G.)—A. Hammerich (Copenhagen). Translations
 from the Danish by L. Frenckhaug von Lohrsten.
 Suggestions towards a Theory of Harmonic Equivalents (E.)—W.
 H. Hadow (Oxford).

PART 4. JULY—SEPTEMBER, 1901.

- On the Chinese Musical System (F.)—A. Dechavannes (Potsdam).
 Swedish School-songs in the Middle Ages, &c. (E.)—T. Norblad (Lund).
 Some documents regarding the Music of the Grande École de Sol (E.)
 —J. Boncompagni (Paris).
 A set of Bach's *preludes* (E.)—J. A. Fuller-Maitland (London).
 A *Hand-Cyclopedia* (G.)—F. Spitta (Königsberg).
 Götter and J. A. Schelle (G.)—E. Rulhié (Berlin).
 A "Der Ruf" of the Swiss Alps (G.)—A. Schering (Leipzig).
 Polish *Impresos* (E.)—F. Stancowicz (Warsaw).
 The Old Hall Manuscripts (E.)—W. Barclay Squire (London).

Total—722 pages *

Fully-indexed

THIRD YEAR.

PART 1. OCTOBER—DECEMBER, 1901.

- Absolute Pitch-tunes (G.)—O. Abraham (Berlin).
 The Beckenhorn-Böckeler case (G.)—J. Struud (Hamburg).
 Adèle Aarnes, in "Aas" (E.)—N. Ellvåg (Biberg, Sweden).
 Origin of "Mad Columbus"—O. C. Stenmark (New York).
 The six-four chord (G.)—G. Capellen (Cuxabach).

PART 2. JANUARY—MARCH, 1902.

- Comparative Study of the Lied (G.)—O. Fleischer (Berlin).
 Music of the Baroque (G.)—Hjalmar Thomsen (Copenhagen).
 First Century of German Opera (G.)—H. Brunschwiler (Leipzig).
 Music Catalogues in Music History (G.)—E. A. Göttsche (Zwickau).
 Art Songs of Russia (R.)—Rosa Newman (London).

PART 3. APRIL—JUNE, 1902.

- On Catholic Judgment (G.)—A. Kuchel (Paris).
 Modern Czech Polyphony (G.)—L. Blachner (Prague).
 Uygian Tribe Melodies (G.)—I. Kuhn (Helsingfors).
 Magnus Aurelius Cassiodorus (G.)—H. Albert (Berlin).
 Walworth Glass Windows (R.)—C. F. Hardy (London).
 Whitman's Peter Koster (L.)—O. Chlupatý (Prague).
 Kuhn's Life (G.)—H. Weyrich (Berlin).
 Songs in Copenhagen (G.)—C. Thomsen (Copenhagen).
 Life-work of Arthur Sullivan (R.)—Alexander Mackenzie (London).

PART 4. JULY—SEPTEMBER, 1902.

- Second Instrument Collection (G.)—O. Fleischer (Berlin).
 Arabic-Persian and c. scales (L.)—O. Chlupatý (Prague).
 Finest and 19th century music (G.)—J. Wolf (Berlin).
 Luther and the Protestant Library (G.)—J. Wolf (Berlin).
 Bach's non-observance of some fixed rules (R.)—H. W. Nicholl (London).
 Pierre de Hyppis (F.)—J. G. Froelichmann (Paris).
 The Chromatic Tone-system (G.)—M. Arnold (Leipzig).
 Uygian Tribe Melodies, 1899 (G.)—I. Kuhn (Helsingfors).

Total—515 pages.*

* Fully indexed.

APPENDIX

TO THE INDEX OF PAPERS READ BEFORE THE
MUSICAL ASSOCIATION
COMPRISING THE SESSIONS XXVI. TO XXVIII.

I.—SUBJECTS.

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